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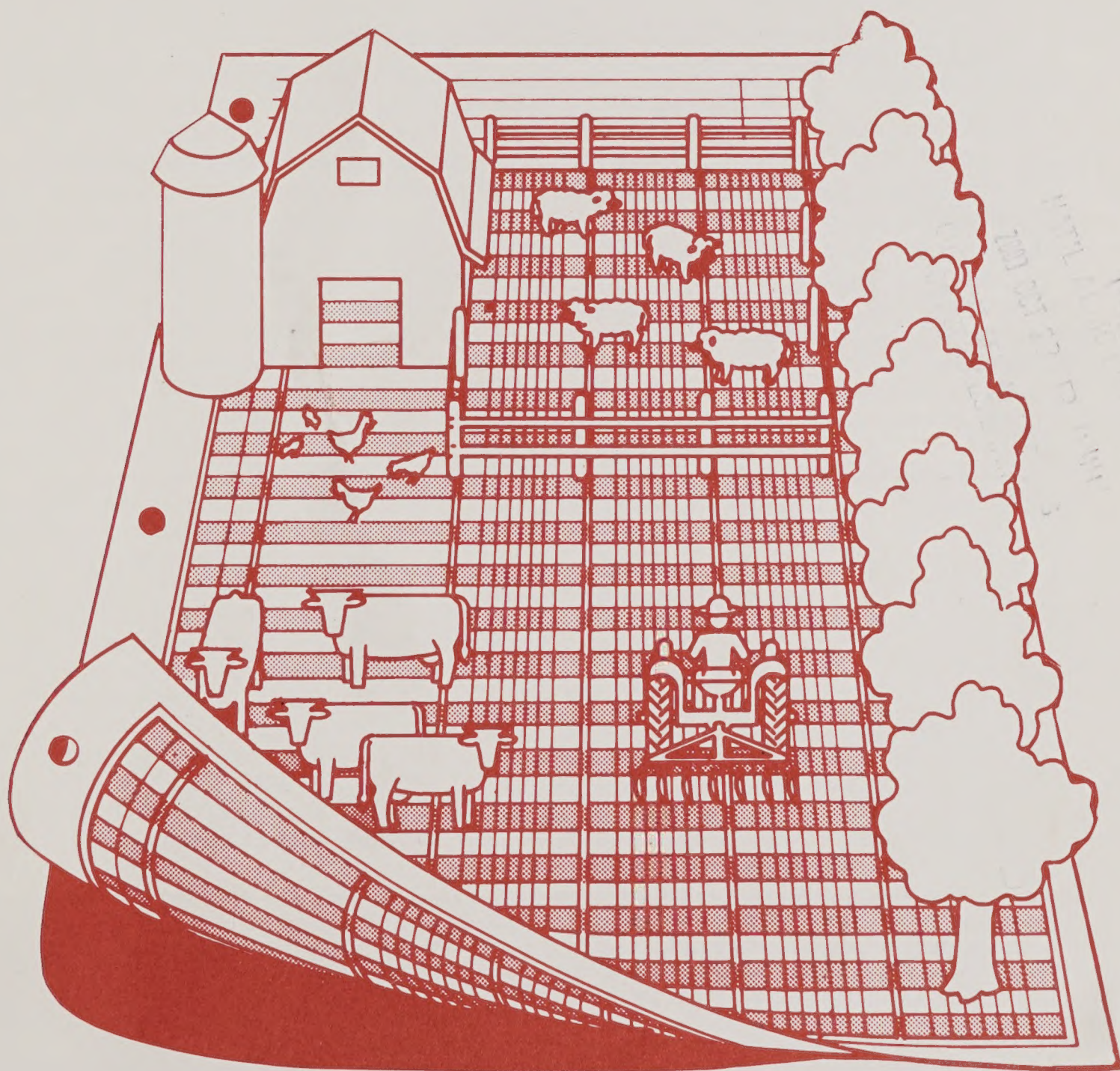
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Economic Indicators of the Farm Sector

Costs of Production-- Major Field Crops & Livestock and Dairy, 1992



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Abstract

Average U.S. economic costs of producing corn, grain sorghum, oats, wheat, soybeans, rice, and cow-calf livestock increased in 1992 but declined for peanuts and cotton. Barley and dairy total economic costs changed little. Variable cash expenses were relatively stable for most crops in 1992 with the exception of peanuts and rice as seed, fertilizer, and energy costs showed a downward trend.

Keywords: Costs of production, enterprise costs and returns.

Preface

This report is one of four in the annual *Economic Indicators of the Farm Sector* series. Others are: *National Financial Summary*, *State Financial Summary*, and *Production and Efficiency Statistics*.

This year's *Costs of Production* contains new production practice and expenditure data from the barley, rice, and hog versions of the 1992 Farm Costs and Returns Survey (FCRS). A new barley region is added to accommodate the new data. Estimates for 1990 through 1992 for cow-calf, and for 1989 through 1992 for milk production, were revised to make the methodology consistent with that used for field crops. Cost-of-production estimates which include the direct effects of government program participation are reported for corn, grain sorghum, and rice. Cost-of-production estimates for sugar beets and sugarcane (which are published in the June issues of *Sugar and Sweetener Situation and Outlook Report*), and fed cattle (which are reported in *Livestock and Poultry Situation and Outlook Report*), are not reprinted in this publication. Wheat cost-of-production estimates for years prior to 1989 are located in the appendix tables 1A-9A along with a map delineating the old wheat production regions. Cow-calf cost-of-production estimates for years prior to 1990 are also located in the appendix tables 10A-14A.

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Highlights

Average U.S. economic costs of producing corn, grain sorghum, oats, wheat, soybeans, rice, and cow-calf livestock increased in 1992, while economic costs declined for peanuts and cotton. Barley and dairy total economic costs changed little. Variable cash expenses were relatively stable for most crops in 1992 with the exception of peanuts and rice as seed, fertilizer, and energy costs showed a downward trend.

CORN. Total economic costs per acre among U.S. corn growers were up by about 3 percent in 1992, but record-high yields caused per-bushel costs to decline by 15 percent. Despite lower corn prices, higher yields increased the gross value of corn production by nearly 8 percent. Returns to management and risk were much improved in the Northeast, Southeast, and North Central regions. Government program participation enhanced returns to corn production to a much greater extent in 1992 than in 1991. Deficiency payments were more than 70 percent higher in 1992 because of lower corn prices. Government programs improved returns to management and risk in 1992 from -\$28.00 to \$5.84 among U.S. corn growers. North Central and Plains corn growers experienced the greatest impacts of program effects due to much higher levels of producer participation than in the Southeast and Northeast.

GRAIN SORGHUM. The per-bushel price of grain sorghum dropped by 20 percent in the Central Plains while per-acre yields rose by 37 percent. In the Southern Plains, the per-bushel price of sorghum fell by 14 percent and per-acre yields rose by only 10 percent. Variable cash expenses were only slightly higher in 1992 than in 1991 while fixed cash expenses rose by 13 percent in the Central Plains and 19 percent in the Southern Plains.

OATS. U.S. average yields were higher in 1992 than in any of the previous 10 years. In the Northeast, yields increased 57 percent compared to 1991 levels. Variable cash expenses showed little change in all regions. General farm overhead, taxes and insurance, and interest attributable to oat enterprises increased because the oat share of total value of farm commodity production increased.

BARLEY. The 1992 estimates are based on new production practices and expenditure data from the barley version of the 1992 Farm Costs and Returns Survey (FCRS). Average yield for States included in the FCRS survey increased by 13 percent to 58 bushels per planted acre and the harvest-month price rose to \$2.16 per bushel, resulting in a 19-percent increase in the per-acre gross value of production of barley. Total cash expenses rose \$6 to reach \$90 per acre in 1992, while total economic costs remained stable at \$162 per acre. Returns to management and risk improved from minus \$51 to minus \$31. Production costs and returns per planted acre varied greatly among regions. Total production costs ranged from \$140 in the Northern Plains to \$234 in the Northwest. The Northwest had the highest production costs because of irrigation-related expenses. The gross value of production of barley ranged from \$113 per acre in the Northern Plains to \$197 per acre in the Northeast. The value of barley straw also contributed to an increase in the gross value of barley crop in the Northeast. The Northeast region's return to management and risk was the most favorable among the barley regions.

WHEAT. The per-acre total economic cost of producing wheat increased 12 percent on average in the U.S. in 1992, with regional increases ranging from 8 percent in the Southeast to 20 percent in the Pacific. Much of the increase is attributable to the increase in net land rent which reflects the higher cash and share rental value of cropland. Per acre variable and fixed cash expenses stayed relatively flat compared to 1991. However, cost increases were more than offset by the rebound in U.S. wheat prices and yields (29 percent and 19 percent respectively) that caused the average per acre gross value of production of U.S. wheat to jump 54 percent. Average harvest-month price increases for wheat ranged from 20 percent in the Pacific Region to 34 percent in the Northern Plains, while yield increases ranged from 9 percent in the Southern Plains to 73 percent in the Southeast.

SOYBEANS. Total economic costs per acre were about 3 percent higher for U.S. soybean growers in 1992, but record-high yields caused a 6 percent decline in per-bushel costs. Lower soybean prices were offset by greater yields as the value of soybean production rose 5 percent. Returns to management and risk were up in nearly all production regions with the greatest improvement among growers in the Delta. Total economic costs per-bushel declined in 1992 for all regions and were about 13 percent lower for Delta producers.

RICE. Rice cost of production estimates for 1992 were based on new survey data from the 1992 Farm Costs and Returns Survey (FCRS). Average yields per planted acre increased in all regions over 1991 levels, with the greatest increases occurring in California and the Mississippi River Delta. Total variable costs per acre, which declined 4 percent at the U.S. level to \$316, declined in all regions except California. On a per unit basis, the Mississippi River Delta had the lowest total economic costs (including Government program participation costs) at \$9.23 per cwt., following the Arkansas non-Delta at \$9.76 and California at \$10.01. The Gulf Coast had the highest estimated total economic costs (including program participation costs) at \$10.85 per cwt.

PEANUTS. Seed prices dropped back to normal levels following the drought-induced premium in 1991. The combination of a slightly higher per-pound price of peanuts and higher per-acre yield led to an 8 percent increase in the U.S. per-acre value of peanut production. Per-acre value of peanut production rose by 20 percent in the Southeast due to higher price and yield as well. In the Southern Plains the value of production was nearly unchanged when the combination of lower price and higher yield nearly offset each other. In the Virginia-North Carolina region, the per-acre value of production was only slightly higher as higher price offset lower yields.

COTTON. Although the costs of producing cotton were lower in 1992, cotton yields and prices were lower as well.

MILK. Variable costs of producing milk fell from \$8.66 per hundredweight in 1991 to \$8.64 per hundredweight in 1992. The largest decline in expenses occurred in those regions where concentrates comprised a high proportion of the total feed ration such as the Southeast. There was a reduction of similar magnitude in total cash expenses that was spurred by lower interest costs. Higher milk prices in combination with lower production costs helped to increase returns to management and risk to the levels observed during the 1989-90 period.

COW-CALF. Residual returns to management and risk declined in all regions compared to 1991 levels, largely because of decreased value of production rather than increased prices. Nationally, gross value of production per bred cow was down 6 percent, while in the South the decline was 9 percent. Western producers had the largest cost increase with a 3-percent increase in total economic costs.

HOGS. Cash production costs among U.S. hog producers averaged about \$42 per hundredweight (cwt) of gain during 1992, while total economic costs were around \$58. Farrow-to-finish operations produced hogs with cash costs of \$37 per cwt of gain and economic costs of \$53. Cash costs were about \$69 and economic costs were \$105 per cwt of gain for farrow-to-feeder pig producers. On feeder pig-to-finish operations cash costs were \$50 while economic costs were \$61 per cwt of gain. Little difference was observed between costs and returns of producers in the North and South regions. Market hog prices averaged in the low- to mid-\$40's in 1992, down from \$50-\$60 hogs during 1990-91. Likewise, feeder pig prices averaged from about \$60-\$80, down from \$90-\$130 pigs during the previous two years. Despite lower hog prices in 1992, producers were able to cover cash costs. However, economic costs exceeded the value of hog production.

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Economic Indicators of the Farm Sector

Costs of Production, 1992--Major Field Crops and Livestock and Dairy

1992 Production Costs and Returns

Average U.S. economic costs of producing corn, grain sorghum, oats, wheat, soybean, rice, and cow-calf increased in 1992, while economic costs declined for peanuts and cotton. Barley and dairy total economic costs changed little. Variable cash expenses were relatively stable for most crops in 1992 with the exception of peanuts and rice (fig. 1) as seed, fertilizer, and energy costs showed a downward trend (fig. 2).

This year's *Costs of Production* incorporates new production practice and expenditure data from the barley, rice, and hog versions of the 1992 Farm Costs and Returns Survey (FCRS). Estimates for 1990 through 1992 for cow-calf, and for 1989 through 1992 for milk production, were revised to make the methodology consistent with that used for field crops.

The Agriculture and Consumer Protection Act of 1973 and subsequent legislation require that the Department of Agriculture annually estimate costs of producing wheat, feed grains, cotton, milk, rice, peanuts, sugar beets, sugarcane, and tobacco. Regional and U.S. estimates for these commodities, except sugar beets, sugarcane, and tobacco, are presented in this report.

Although the estimates are often called budgets, they are not projections or goals, but historical estimates of costs, reflecting actual levels of input use, production practices, yields, and prices as measured by surveys of producers and suppliers. Costs include both cash expenditures, by farm operators and landlords, and economic costs of production. *Direct payments for and costs of participation in Government programs are excluded except for corn, grain sorghum, and rice estimates.*

Structure of Accounts

ERS cost-of-production accounts include estimates of both cash expenditures and noncash costs. Cash expenditures are incurred when factors of production are purchased or rented. Noncash costs occur when factors are owned. For example, if a farmer fully owns the land used to produce corn, he would have no expenditure for land rental or for loans to pay for the purchase of land. Yet, an economic cost arises. By owning the land and using it to grow corn, the farmer forgoes income from other uses of the land, such as renting it to another producer. Costs come about because production resources are limited and have alternative uses. If a farmer uses savings to pay for operating inputs, such as seed, fertilizer, chemicals, and fuel, and thus pays no interest on operating loans, the farmer still incurs an economic cost because the savings could have earned a return in another use. Owned inputs are not without cost.

ERS combines in a single account the production costs and returns of farm operators and landlords. If a landlord pays a share of a farmer's costs, such as fertilizer, as part of a rental agreement, then those costs are added to the operator's costs and subtracted from the rental value of the land. Land rent is not included as a *cash* expense because what is a rental expense to the farm operator is offsetting income to the landlord. An ownership cost is imputed instead to land and is included as an economic cost.

Production costs are balanced with values of production (fig. 3). Total economic costs, including returns to all factors of production, are equal to gross value of production. Crops are valued at their time of harvest while livestock and dairy are valued at annual average market prices. Marketing costs and returns are excluded for crops, but included for livestock and dairy. Costs, including such items as hauling and drying, are measured to the point of first sale or storage, but actual storage costs are excluded.

Figure 1

Variable cash expenses per planted acre, 1990-92

Dollars

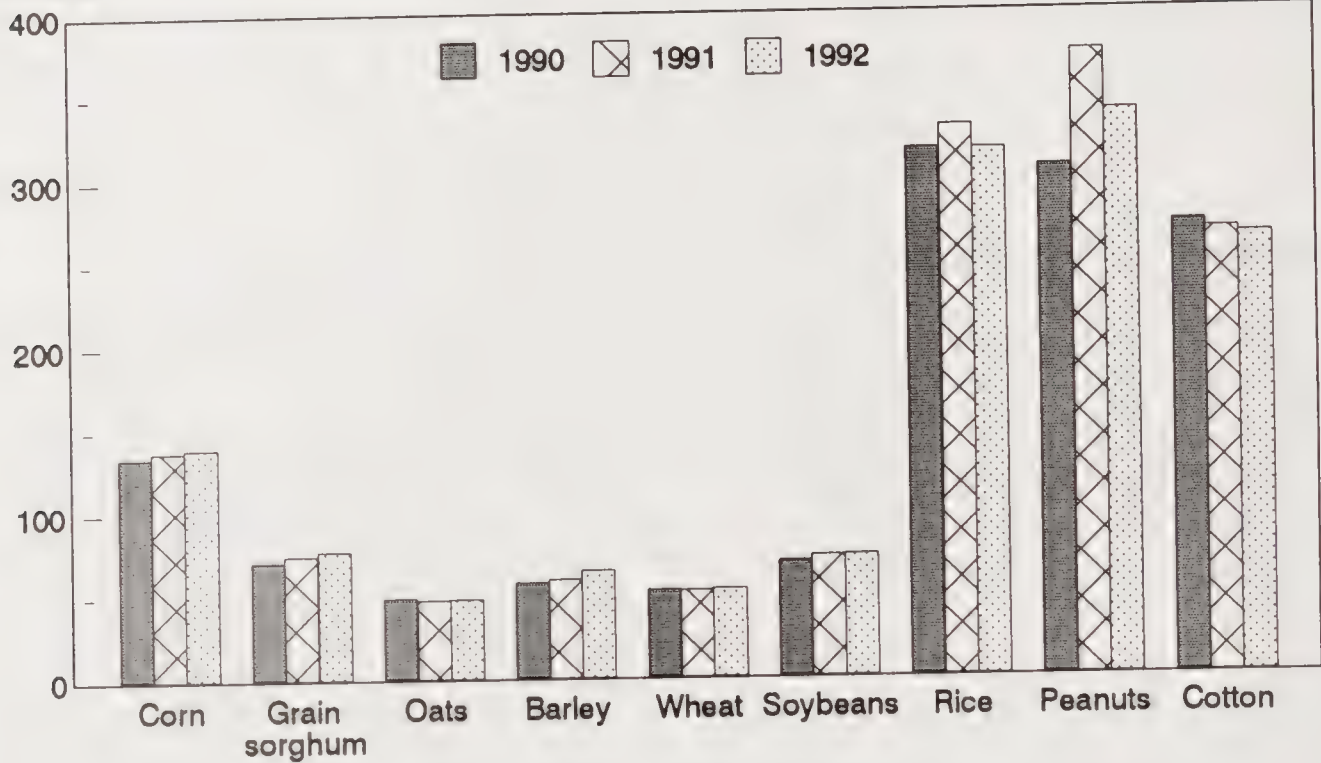
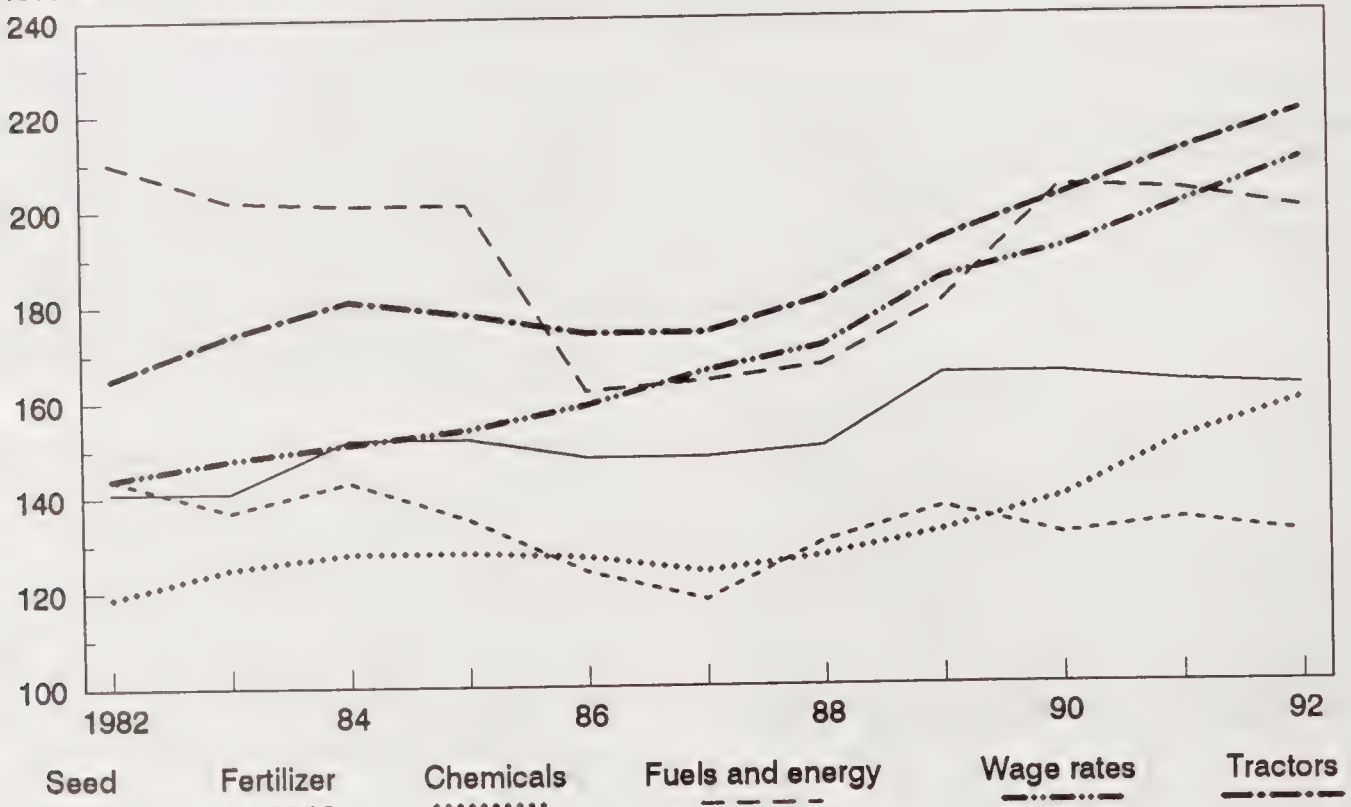


Figure 2

Indexes of prices paid, 1982-92

1977 = 100



Some major field crops yield secondary crops, for example, cottonseed from cotton and straw from oats, barley, and wheat. Production costs for the secondary crops cannot be separated from those of the major crops. Therefore, ERS includes estimates of the values of production of secondary crops in order to balance production costs with gross value of production. The value of a secondary crop, especially straw in the North Central region, can be considerable.

Livestock commodities (including milk) are valued at annual average market prices. The total returns category includes receipts from both primary and secondary products of livestock production. Examples of secondary products would be cull dairy cows and dairy calves.

Gross value of production minus cash expenses is a short-term return to production and measures the amount of cash that would be left to cover longer term costs, such as machinery replacement or debt retirement.

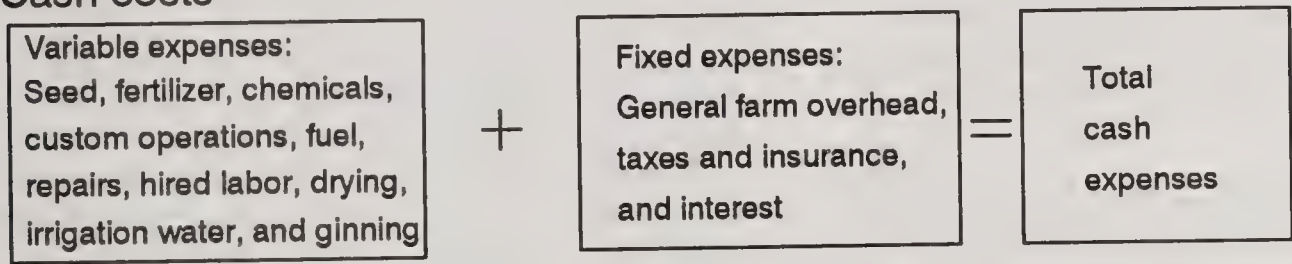
ERS prepares crop production cost estimates on a per-planted-acre basis. Costs are included only for acreage that was planted with the intention of being harvested for

grain. Excluded are corn and sorghum silage and small grains planted only as cover crops or for grazing. Costs are included for production that is abandoned because of crop damage. On double-cropped acreage (two crops on the same land in the same growing season), land costs are divided between the two crops. For crops that are planted following a fallow season, 2 years of land costs are counted.

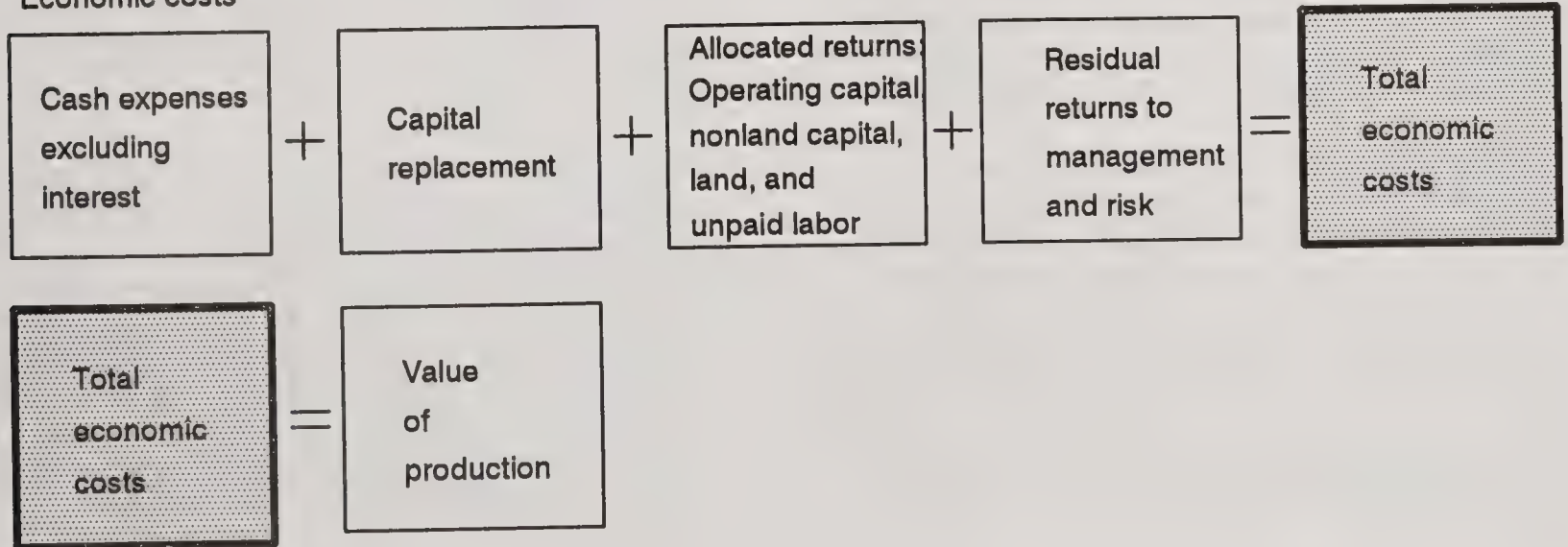
Cow-calf cost estimates are reported on a per-head basis, while milk cost estimates are reported on a per-hundredweight-sold basis. Cost accounts are presented for all hog producers and the various types of hog enterprises. Estimates for all hog producers include farrow-to-finish, farrow-to-feeder pig, feeder pig-to-finish, and all other hog operations. Hog enterprise cost estimates are reported on a per-pound-of-gain basis.

Most commodities are produced on farms which have multiple production or service enterprises; farm machinery, equipment, buildings, and their costs are shared by the various enterprises on the farm. ERS allocates machinery operating costs and capital replacement costs to a particular commodity enterprise based on estimates of hours that the

Figure 3
Structure of accounts
Cash costs



Economic costs



machine is used on that commodity relative to total hours of annual use. General farm overhead expenses and interest payments are allocated to an individual enterprise based on that commodity share of gross value of production.

Government Programs and Costs of Production

Government commodity programs most prominently affect ERS cost-of-production accounts by affecting commodity prices. ERS allocates some whole-farm expenses and calculates share rental costs and residual returns to management and risk from commodity prices. The market prices that ERS uses can be influenced by Government nonrecourse loan and marketing loan programs. Thus, effects of these programs on prices are included in the cost-of-production estimates. Direct Government payments and participation costs in farm income support programs, however, are generally excluded.

The Government's Commodity Credit Corporation (CCC) operates nonrecourse loan programs for corn, grain sorghum, barley, oats, wheat, rice, soybeans, peanuts, and upland cotton. The programs enable producers to use a crop as collateral for a nonrecourse loan. Producers may either repay the loan and sell the crop on the market or forfeit the crop to the CCC at no cost other than storage. Prices are supported as crops are temporarily removed from the market.

Marketing loan programs, which operate for rice and cotton, allow prices to fall below CCC loan rates. Participants can repay loans at either the loan rate or the world price, whichever is lower. Proceeds from marketing loans, that is, the difference between the world price and the nonrecourse loan rate, are included only in the rice estimates that incorporate direct Government payments.

Milk prices are supported through direct market intervention by Commodity Credit Corporation purchases of manufactured dairy products (butter, cheese, and nonfat dry milk). The Government also affects prices for milk and meat by limiting the quantity of milk and meat imports. In addition, the Government assists producers in emergencies caused by natural disasters.

The Government operates deficiency payment programs for corn, grain sorghum, barley, oats, wheat, rice, and upland

cotton. Farmers and landlords, if they participate in the programs, may receive *direct payments* based on proven yields. Payment rates are calculated as the lesser of either the difference between the CCC loan rate and the Government-established target price or the market price and the target price. A participant may be required to idle acreage that would have been planted to the crop in return for direct payments on the remaining acreage. Participants may also be required to incur costs by maintaining a cover crop or controlling weeds on the idled acreage. ERS prepares COP estimates excluding Government participation costs and direct payments for all commodities. In addition, this report contains COP estimates for corn, grain sorghum, and rice that include direct Government payments and program participation costs. The estimates including direct effects of government program add costs and returns associated with both planted acreage and acreage idled by program participants. Cost and return components that change when program effects are accounted for are denoted in figure 4.

Gross Value of Production

ERS crop enterprise accounts begin with estimates of value of production per acre for each crop. Gross value of production is defined as the value of the primary and secondary crops at the time of harvest. ERS generally excludes deficiency payments, paid land diversions, and marketing loan proceeds from gross value of production. Also excluded are income from crop insurance indemnities and disaster assistance payments. An additional set of estimates for corn, grain sorghum, and rice includes deficiency payments and marketing loan proceeds. Deficiency payments on 0/92 and 50/92 acreage are included. There were no marketing loans for corn or sorghum.

The gross value of production for livestock commodities includes the value of primary and secondary products, as well as any other related sources of income to the enterprise. Any direct Government program benefits are excluded from receipts. To ensure consistency between costs and returns, income from cooperative memberships, manure sales, and any other income derived from livestock enterprise assets are added to gross value of production (and reported as "other income") when expenses for these items are not separable from other farm enterprise expenses.

Budget line items affected by Government program participation 1/

Table A--Program commodity production cash costs and returns

=====	
Gross value of production:	
Market value of primary crop	
Market value of secondary crop	
* Deficiency payments	
* Marketing loan proceeds	
* Haying/grazing on set-aside acreage	
* Total, gross value of production	
Cash expenses:	
Seed	
Fertilizer, lime, and gypsum	
* Chemicals 2/	
Custom operations 3/	
* Fuel, lube, and electricity	
* Repairs	
* Hired labor	
Drying	
* Other variable cash expenses 4/	
* Total, variable cash expenses	
* General farm overhead	
* Taxes and insurance	
* Interest	
* Total, fixed cash expenses	
* Total, cash expenses	
* Gross value of production less cash expenses	
=====	
Harvest-period price (dollars/bu.)	
Yield (bu./planted acre)	
=====	

Table B--Program commodity production economic costs and returns

=====	
Gross value of production:	
Market value of primary crop	
Market value of secondary crop	
* Deficiency payments	
* Marketing loan proceeds	
* Haying/grazing on set-aside acreage	
* Total, gross value of production	
Economic (full ownership) costs:	
* Variable cash expenses	
* General farm overhead	
* Taxes and insurance	
* Capital replacement	
* Operating capital	
* Other nonland capital	
* Land	
* Unpaid labor	
* Total, economic costs	
* Residual returns to management and risk	
=====	
Harvest-period price (dollars/bu.)	
Yield (bu./planted acre)	
=====	
1/ Asterisk (*) indicates line item generally adjusted for Government program participation. 2/ May include custom and self-applied chemicals on government program conserving-use acres. 3/ Cost of custom operations and technical services. 4/ May include cost of purchased irrigation water and cover crop seed on set-aside acres.	

Variable and Fixed Cash Expenses

Cash expenses represent the amount of money spent during the production process. Variable cash expenses associated with crop production include seed, fertilizer, chemicals, custom operations, hired labor, fuel, repairs, purchased irrigation water, drying, cotton ginning, and technical services, such as insect scouting and soil testing. For livestock and milk production the major variable expense items are feed, energy, machinery and building repairs, and labor. Variable cash expenses depend upon production practices as well as quantities and prices of inputs used.

Fixed cash expenses include real estate and property taxes, insurance, general farm overhead, and interest paid on operating loans and real estate loans. Items considered general farm overhead may vary between crop and livestock enterprises, but generally represent factors of production whose services are utilized but are not directly attributable to any single production activity on the farm. Some examples of general farm overhead include legal fees, magazine subscriptions, farm utilities, and other general business expenses. Fixed cash expenses, which are difficult to assign directly to a specific enterprise on a farm, are allocated to each commodity based on its relative share of the total value of production.

Economic (Full-Ownership) Costs

Economic costs are long-term costs that account for all production inputs, without regard to the ownership or equity positions of farm operators. Full-ownership costs are charged. Economic costs include both variable and fixed cash expenses (except cash interest payments), capital replacement, imputed costs of land, unpaid labor, capital invested in production inputs and machinery, and residual returns to management and risk. Cash expenses are valued by market prices or by expenditures reported by farmers. Opportunity costs (noncash) are measured from values of capital, land, and unpaid labor in alternative uses. Opportunity costs are called allocated returns to owned inputs, in accord with the full-ownership definition.

Capital replacement. Capital replacement is the portion of the value of machinery and equipment, in addition to repairs, that is used up in the production process. It is based on the current value of the machinery. Capital replacement may be regarded as a discretionary expense in any particular year. It may be deferred when income is low but ultimately must be paid to maintain the capital stock.

Operating and other nonland capital. The cost of,

or the return to, operating capital is the cost of carrying input expenses from the time they are used until harvest. ERS measures the return to operating capital at the annual average rate on 6-month U.S. Treasury bills. The return to other nonland capital is the cost of having capital invested in farm machinery and equipment. ERS calculates this cost as equal to the longrun rate of return to agricultural production assets.

Land. Cropland is a specialized input. Its value depends on the value of the crops that it produces, which is reflected in share and cash rental costs. Because an alternative use for land for any one landowner is to rent it to someone who will produce the same crop, ERS values land in the cost-of-production accounts at its rental value. The land rental rates for each crop are composite share and cash rental rates. ERS calculates the share rental value directly from the actual yield and price of the crop. Cash rental rates, which are fixed at the outset of production, presumably reflect expectations about crop yields and prices. The net land rent (gross rent minus real estate taxes and the value of inputs supplied by landlords and adjusted for double-cropping and fallow rotation) is applied to all acreage, regardless of whether it is owned or rented by the farm operator.

Government commodity programs, which support crop prices and make payments to farm operators and landlords based on yields, affect the costs of land. When ERS excludes direct Government payments from gross value of production, it also excludes the payments from the share rent. Including the payments increases the share rental charge when the crop's market price is below the direct Government payment level.

Land cost for the cow-calf and hog enterprises includes a charge only on land used for building sites, manure storage, corrals, and lots. A cash rental rate is used to value this land. Land used to produce livestock feed, such as corn or forage, is not included in the land cost, but rather its feed value is included as a variable cost.

Unpaid labor. Labor costs are divided between hired and unpaid labor depending upon whether a cash wage is paid. ERS counts hired labor as a variable cash expense and imputes a value to unpaid labor based on estimated hours worked and average agricultural wage rates. Unpaid labor is included as a noncash cost. Additional value of labor, such as for managerial and entrepreneurial skill, is reflected in residual returns.

Residual returns to management and risk.

The difference between gross value of production and the total of cash expenses except interest, allocated returns to operating capital, other nonland capital, land, and unpaid labor is residual returns to management and risk. Returns to management are expected to be positive, though their level is not known. Because of variability in weather and commodity prices, which are beyond a farmer's control, returns to risk in any particular year may be positive or negative. Over time, however, they should average zero. Combined returns to management and risk, therefore, are expected to be positive.

For some commodities, the average returns to production management and risk shown in ERS accounts have been consistently negative in recent years. Because direct Government payments are excluded from the accounts, the estimated gross value of production may be less than what farmers actually receive. Although costs, particularly for land, would also increase if direct Government payments were included, residual returns may be greater than shown. Net returns to marketing a crop beyond production may also be positive.

Data Sources

The primary data source for annual cost-of-production estimates is the Farm Costs and Returns Survey (FCRS). It is supplemented with price and production data from other sources, mainly *Agricultural Prices* (7) and *Crop Production* (8). Seed, fertilizer, and machinery operating costs are generally derived from producers' descriptions of inputs, field operations, and machinery used on a particular commodity and from input price and machinery performance data. Other variable cash expenses and fixed cash expenses come from producers' estimates of expenditures (5). Livestock building and equipment values are derived from producers' descriptions of those used, along with annual building cost guides (10).

ERS calculates cost-of-production estimates using farm-level estimation procedures. Commodity specific models have been developed for corn, grain sorghum, oats, barley, wheat, soybean, rice, peanuts, cotton, milk, cow-calf, and hog commodities. A farm-level model calculates production costs for each farm in the FCRS and then aggregates the costs to produce regional and U.S. estimates. The farm-level approach to cost estimation allows greater differentiation in costs between farms and more detailed analysis of cost-of-production information.

Farm Costs and Returns Survey

The FCRS is conducted annually by ERS and the National Agricultural Statistics Service (NASS). Each year, there are multiple versions of the FCRS: an indepth whole-farm version and commodity cost-of-production versions. All versions have common questions about whole-farm expenses and income. Each cost-of-production version gathers more detailed information about input use, field operations, and production costs of a particular crop.

The FCRS is a multiframe stratified survey. The sample is drawn from stratified list and area frames. For a particular cost-of-production version, the list frame is made up of farms known to have produced the commodity previously. The list frame is stratified by size. The area frame is made up of land segments, stratified by land use. Each sampled farm represents a number of similar farms, the particular number being the survey expansion factor, which is the inverse of the probability of the sampled farm being selected. Data are expanded by the survey expansion factors to produce estimates for the population of all farms producing the commodity.

Farmers are interviewed in person by field enumerators using questionnaires developed by NASS and ERS. The FCRS takes place during February and March, with questions being asked about production in the previous year.

FCRS base years. Because of survey costs, USDA cannot undertake detailed cost-of-production surveys of every major field crop in every year. Instead, the FCRS covers each commodity in detail about every 4 to 5 years (fig. 5). ERS updates the FCRS-based costs from other data sources in nonsurvey years.

Figure 5

Basis years for costs of production estimates, 1984-92 ^{1/}

	1984	1985	1986	1987	1988	1989	1990	1991	1992
Corn	1982-83		1987					1991	
Sorghum	1982-83	1986				1990			
Oats	1983				1988				
Barley	1982-83		1987						1992
Wheat	1982-83	1986			1989				
Rice	1984		1988						1992
Soybeans	1982-83	1986				1990			
Peanuts	1982		1987					1991	
Cotton	1982		1987					1991	
Dairy	1980	1985				1989			
Cow-calf	1980					1990			
Hogs	1980				1988				1992

^{1/} Years in shaded areas indicate Farm Costs and Returns Survey year for the time period shown.

Note: Costs are estimated annually between survey years.

Statistical precision. The FCRS, like other surveys, is not a complete enumeration of all farms. A sample is chosen to represent all farms producing a particular commodity. There are many possible samples, each of which can yield different estimates even if the same questionnaires, instructions, and enumerators are used.

The variation in estimates that comes simply from different possible samples is called sampling error. Sampling "error" is not the result of mistakes. It arises because any randomly chosen sample may not exactly match the population of all farms: the values of data items can differ from farm to farm and only some of the farms are selected in a sample.

Sampling error is controlled in the FCRS by the sample size and by carefully grouping or stratifying similar farms before samples of each group or stratum are drawn. By measuring the differences in a data item

within the groups, ERS measures FCRS sampling errors, an indication of how far the value in the sample may be from the "true" value for all farms. Chemical costs per acre, an item that is measured solely from the FCRS, had sampling errors of about 4 percent for the U.S. rice, wheat, and soybean estimates. This means that there is a 95-percent probability that the FCRS estimates are within about 8 percent of the "true" costs.

Survey data may also contain nonsampling errors, such as misstating of questions by enumerators and inability or unwillingness of respondents to give accurate answers. Nonsampling errors are controlled in the FCRS by designing and pretesting questions so that they can be answered easily and accurately from farm records, by training and supervising enumerators who are familiar with farming in the surveyed areas, and by reviewing data for consistency.

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Figure 6

Corn Production Regions

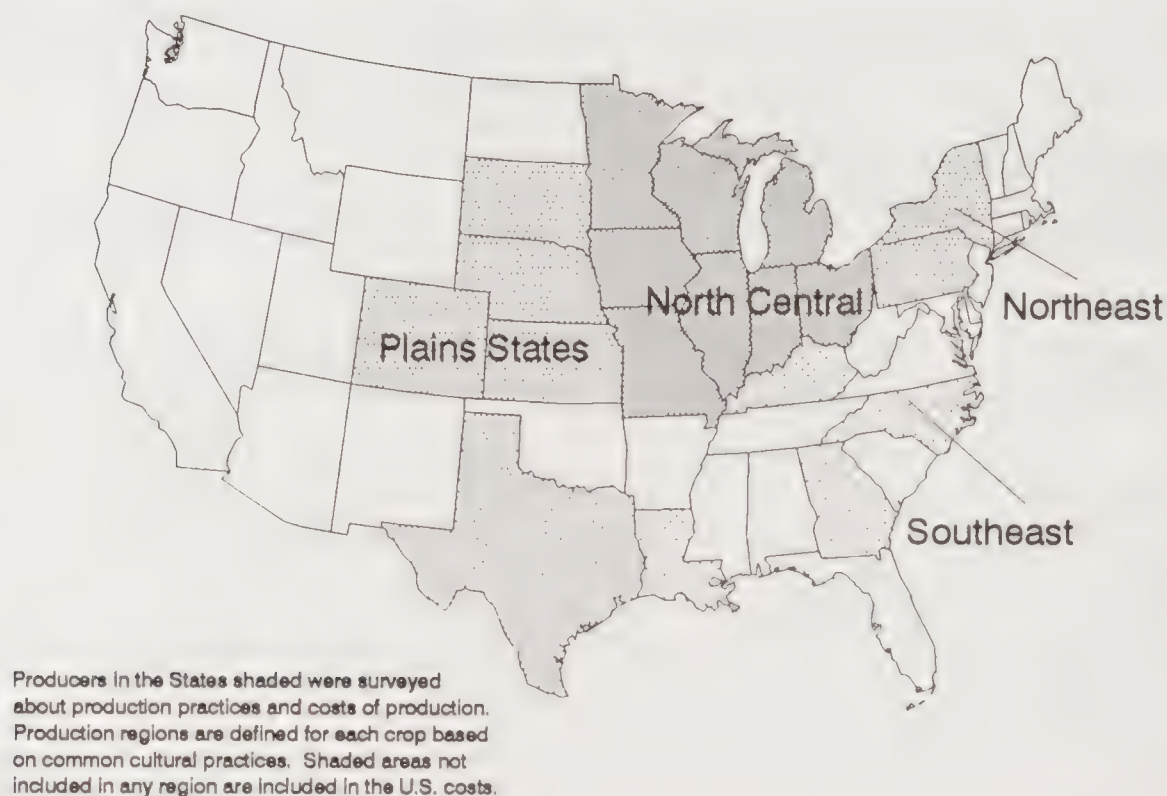
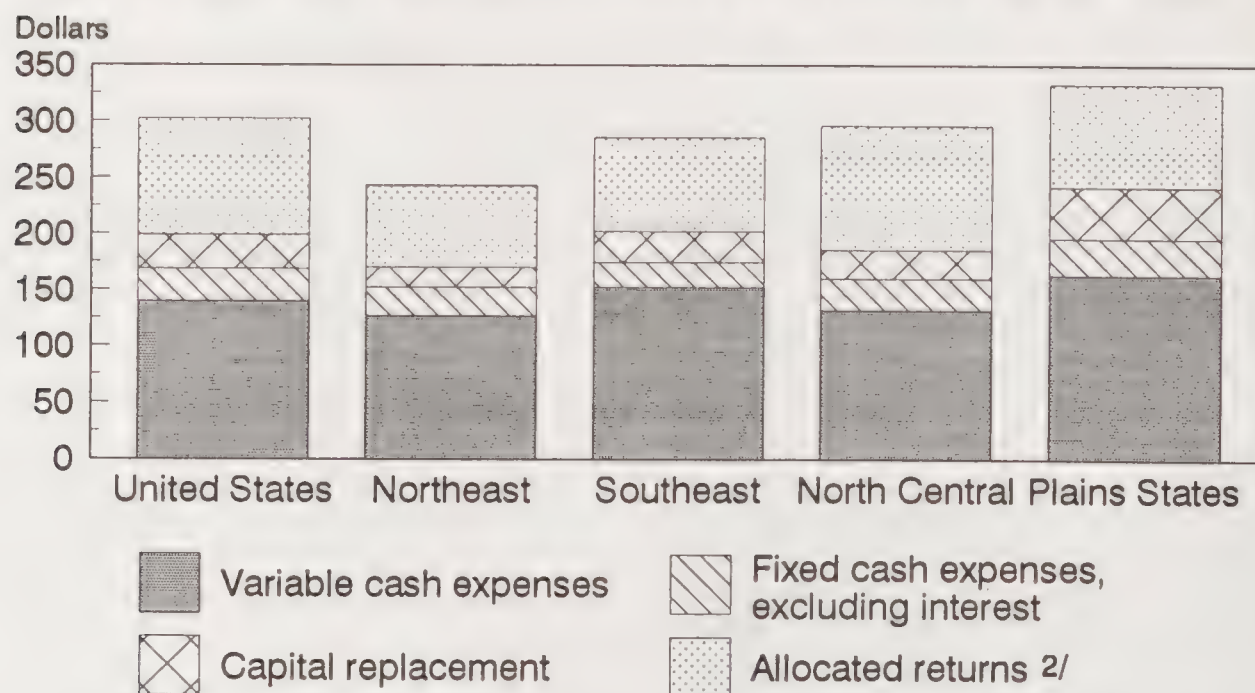


Figure 7

Corn production economic costs per planted acre, 1992^{1/}



1/ Excluding government payments. 2/ Income foregone by allocating resources owned by the operation (operating and other nonland capital, land, and unpaid labor) to corn production rather than some other income-producing use.

Table 1A--U.S. corn production cash costs and returns, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Corn	243.45	252.82	272.94	252.17	167.03	186.56	217.20	255.37	257.33	254.98	274.33
Total, gross value of production	243.45	252.82	272.94	252.17	167.03	186.56	217.20	255.37	257.33	254.98	274.33
Cash expenses:											
Seed	16.45	16.65	18.03	18.48	19.25	18.86	18.90	21.02	20.52	21.61	22.10
Fertilizer, lime, and gypsum	51.18	49.62	52.56	52.65	40.77	37.50	45.39	47.21	42.58	44.59	43.16
Chemicals	18.24	19.12	19.51	19.51	20.27	20.19	20.49	21.51	22.64	22.46	23.46
Custom operations 1/	7.56	7.52	7.70	7.64	5.62	5.65	4.94	6.02	6.28	9.21	9.54
Fuel, lube, and electricity	24.99	20.95	19.45	22.87	18.22	18.80	16.59	20.12	24.00	18.92	18.29
Repairs	10.75	10.34	11.12	11.05	8.10	8.25	8.10	8.94	9.28	13.31	14.83
Hired labor	3.78	3.52	3.83	4.02	7.87	7.83	7.87	8.29	8.61	7.37	7.74
Other variable cash expenses 2/	0.58	0.58	0.59	0.58	0.31	0.31	0.32	0.31	0.30	0.41	0.40
Total, variable cash expenses	133.52	128.30	132.79	136.81	120.41	117.39	122.60	133.42	134.21	137.88	139.52
General farm overhead	16.20	15.22	15.37	10.93	10.42	10.15	10.81	10.42	12.06	10.39	10.58
Taxes and insurance	13.93	13.45	17.00	17.47	13.81	14.65	14.59	14.87	14.85	17.98	18.41
Interest	47.31	45.10	45.91	32.72	20.96	16.11	14.94	15.13	16.65	16.79	14.74
Total, fixed cash expenses	77.44	73.77	78.28	61.12	45.19	40.91	40.34	40.42	43.56	45.16	43.73
Total, cash expenses	210.96	202.07	211.07	197.93	165.60	158.30	162.94	173.84	177.77	183.04	183.25
Gross value of production less cash expenses	32.67	50.83	62.16	54.70	2.00	27.72	54.20	81.53	79.55	71.94	91.08
Harvest-period price (dollars/bu.)	2.14	3.21	2.58	2.15	1.41	1.57	2.61	2.22	2.19	2.31	2.05
Yield (bu./planted acre)	113.76	78.76	105.79	117.29	118.46	118.83	83.22	115.03	117.50	110.38	133.82

Table 1B--U.S. corn production economic costs and returns, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Corn	243.45	252.82	272.94	252.17	167.03	186.56	217.20	255.37	257.33	254.98	274.33
Total, gross value of production	243.45	252.82	272.94	252.17	167.03	186.56	217.20	255.37	257.33	254.98	274.33
Economic (full ownership) costs:											
Variable cash expenses	133.52	128.30	132.79	136.81	120.41	117.39	122.60	133.42	134.21	137.88	139.52
General farm overhead	16.20	15.22	15.37	10.93	10.42	10.15	10.81	10.42	12.06	10.39	10.58
Taxes and insurance	13.93	13.45	17.00	17.47	13.81	14.65	14.59	14.87	14.85	17.98	18.41
Capital replacement	33.25	33.56	33.73	34.62	29.77	30.08	30.95	34.01	35.61	27.23	30.19
Operating capital	6.03	4.75	5.42	4.36	2.53	2.75	3.41	4.19	3.82	3.75	2.49
Other nonland capital	5.89	5.19	6.78	6.56	5.29	5.25	6.12	8.14	9.28	10.17	11.86
Land	51.29	47.95	67.63	54.82	41.19	44.26	52.83	57.80	59.63	61.61	64.29
Unpaid labor	10.74	10.03	10.30	11.45	19.70	20.04	21.26	22.04	23.06	23.54	24.99
Total, economic costs	270.86	258.45	289.61	277.02	243.12	244.57	262.57	284.89	292.52	292.55	302.33
Residual returns to management and risk	-27.23	-5.55	-16.38	-24.39	-75.52	-58.55	-45.43	-29.52	-35.19	-37.57	-28.00
Harvest-period price (dollars/bu.)	2.14	3.21	2.58	2.15	1.41	1.57	2.61	2.22	2.19	2.31	2.05
Yield (bu./planted acre)	113.76	78.76	105.79	117.29	118.46	118.83	83.22	115.03	117.50	110.38	133.82

1/ Cost of custom operations, technical services and commercial drying. 2/ Cost of purchased irrigation water.
Note: Survey base changed in 1986 and 1991.

Table 1C--U.S. corn production cash costs and returns, including direct Government payments and program participation costs, 1991-92

Item	1991	1992
Dollars per planted acre		
Gross value of production (including direct Government payments):		
Market value of corn grain	254.98	274.33
Direct government payments 1/	28.23	48.30
Haying/grazing on ACR and CU acreage	0.43	0.32
Total, gross value of production	283.64	322.95
Cash expenses:		
Seed	21.61	22.10
Fertilizer, lime, and gypsum	44.59	43.16
Chemicals	22.56	23.53
Custom operations 2/	9.21	9.54
Fuel, lube, and electricity	19.26	18.49
Repairs	13.58	14.89
Hired labor	7.44	7.79
Other variable cash expenses 3/	1.05	0.83
Total, variable cash expenses	139.30	140.33
General farm overhead	11.28	11.81
Taxes and insurance	19.45	19.67
Interest	17.89	16.14
Total, fixed cash expenses	48.62	47.62
Total, cash expenses	187.92	187.95
Gross value of production less cash expenses	95.72	135.00
Harvest-period price (dollars/bu.)	2.31	2.05
Yield (bu./planted acre)	110.38	133.82
Percent of planted corn acres in program	69	67

Table 1D--U.S. corn production cash costs and returns, including direct Government payments and program participation costs, 1991-92

Item	1991	1992
Dollars per planted acre		
Gross value of production (including direct Government payments):		
Market value of corn grain	254.98	274.33
Direct government payments 1/	28.23	48.30
Haying/grazing on ACR and CU acreage	0.43	0.32
Total, gross value of production	283.64	322.95
Economic (full ownership) costs:		
Variable cash expenses	139.30	140.33
General farm overhead	11.28	11.81
Taxes and insurance	19.45	19.67
Capital replacement	27.52	30.25
Operating capital	3.79	2.50
Other nonland capital	10.34	11.98
Land	68.04	75.43
Unpaid labor	23.76	25.14
Total, economic costs	303.48	317.11
Residual returns to management and risk	-19.84	5.84
Harvest-period price (dollars/bu.)	2.31	2.05
Yield (bu./planted acre)	110.38	133.82
Percent of planted corn acres in program	69	67

1/ Deficiency payments. Payments are not adjusted for payment limitations. 2/ Cost of custom operations, technical services, and commercial drying. 3/ Cost of purchased irrigation water, cover crop seed, and other input items.

Table 2A--Corn production cash costs and returns, Northeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Corn	214.48	272.65	313.26	268.89	160.81	157.88	214.40	256.67	273.06	156.42	173.60
Total, gross value of production	214.48	272.65	313.26	268.89	160.81	157.88	214.40	256.67	273.06	156.42	173.60
Cash expenses:											
Seed	14.56	14.22	16.16	17.46	19.56	19.34	19.46	22.09	20.83	21.15	21.79
Fertilizer, lime, and gypsum	56.28	52.51	55.21	54.35	45.08	43.72	50.21	55.77	50.68	41.77	37.76
Chemicals	18.14	19.05	19.47	19.50	18.19	18.17	18.47	19.33	20.30	21.59	21.23
Custom operations 1/	8.26	8.07	8.61	11.42	8.81	11.78	7.09	9.61	9.38	9.11	8.94
Fuel, lube, and electricity	19.26	16.85	17.12	19.19	11.40	11.48	11.48	13.77	15.16	12.50	11.50
Repairs	10.58	12.27	12.08	12.08	9.92	9.76	9.65	11.36	11.33	10.90	11.67
Hired labor	4.20	3.99	4.41	4.61	6.69	6.64	6.83	7.22	7.42	12.83	13.18
Other variable cash expenses 2/	0.28	0.28	0.28	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total, variable cash expenses	131.56	125.22	133.54	138.90	119.65	118.06	123.30	139.15	135.10	129.85	126.07
General farm overhead	14.40	25.19	25.60	20.60	7.94	7.76	8.23	7.96	9.21	5.39	5.52
Taxes and insurance	15.25	16.34	17.64	18.69	15.51	15.26	15.47	16.02	15.73	19.64	20.62
Interest	40.48	31.61	37.91	34.51	8.83	6.85	6.25	6.43	7.08	3.00	2.66
Total, fixed cash expenses	70.13	73.14	81.15	73.80	32.28	29.87	29.95	30.41	32.02	28.03	28.80
Total, cash expenses	201.69	198.36	214.69	212.70	151.93	147.93	153.25	169.56	167.12	157.88	154.87
Gross value of production less cash expenses	13.21	74.57	99.02	56.25	8.48	10.15	60.89	87.11	105.94	-1.46	18.73
Harvest-period price (dollars/bu.)	2.24	3.70	2.94	2.45	1.74	1.77	3.08	2.60	2.51	2.55	2.29
Yield (bu./planted acre)	95.75	73.69	106.55	109.75	92.42	89.20	69.61	98.72	108.79	61.34	75.81

Table 2B--Corn production economic costs and returns, Northeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Corn	214.48	272.65	313.26	268.89	160.81	157.88	214.40	256.67	273.06	156.42	173.60
Total, gross value of production	214.48	272.65	313.26	268.89	160.81	157.88	214.40	256.67	273.06	156.42	173.60
Economic (full ownership) costs:											
Variable cash expenses	131.56	125.22	133.54	138.90	119.65	118.06	123.30	139.15	135.10	129.85	126.07
General farm overhead	14.40	25.19	25.60	20.60	7.94	7.76	8.23	7.96	9.21	5.39	5.52
Taxes and insurance	15.25	16.34	17.64	18.69	15.51	15.26	15.47	16.02	15.73	19.64	20.62
Capital replacement	26.18	26.54	29.65	30.19	30.67	30.39	31.71	34.99	36.10	16.44	17.60
Operating capital	5.37	4.14	4.76	3.98	2.46	2.72	3.37	4.26	3.85	3.53	2.25
Other nonland capital	5.20	4.65	6.55	6.32	6.19	6.02	7.22	9.80	10.72	8.45	9.47
Land	24.50	27.86	29.83	26.31	24.33	25.70	30.80	33.73	31.94	29.79	29.79
Unpaid labor	11.96	11.35	12.54	13.14	20.95	19.93	23.52	24.31	25.04	30.35	31.48
Total, economic costs	234.42	241.29	260.10	258.12	227.70	225.84	243.62	270.22	267.69	243.44	242.80
Residual returns to management and risk	-19.52	31.64	53.61	10.83	-67.29	-67.76	-29.48	-13.55	5.37	-87.02	-69.20
Harvest-period price (dollars/bu.)	2.24	3.70	2.94	2.45	1.74	1.77	3.08	2.60	2.51	2.55	2.29
Yield (bu./planted acre)	95.75	73.69	106.55	109.75	92.42	89.20	69.61	98.72	108.79	61.34	75.81

1/ Cost of custom operations, technical services and commercial drying. 2/ Cost of purchased irrigated water.

Note: Survey base changed in 1986 and 1991.

Table 2C--Corn production cash costs and returns, including direct Government payments and program participation costs, Northeast, 1991-92

Item	1991	1992
Dollars per planted acre		
Gross value of production (including direct Government payments):		
Market value of corn grain	156.42	173.60
Direct government payments 1/	12.12	20.42
Haying/grazing on ACR and CU acreage	0.26	0.23
Total, gross value of production	168.80	194.25
Cash expenses:		
Seed	21.15	21.79
Fertilizer, lime, and gypsum	41.77	37.76
Chemicals	21.59	21.23
Custom operations 2/	9.11	8.94
Fuel, lube, and electricity	12.63	11.59
Repairs	10.99	11.73
Hired labor	12.88	13.22
Other variable cash expenses 3/	0.60	0.46
Total, variable cash expenses	130.72	126.72
General farm overhead	6.49	6.83
Taxes and insurance	21.62	22.33
Interest	4.08	3.72
Total, fixed cash expenses	32.19	32.88
Total, cash expenses	162.91	159.60
Gross value of production less cash expenses	5.89	34.65
Harvest-period price (dollars/bu.)	2.55	2.29
Yield (bu./planted acre)	61.34	75.81
Percent of planted corn acres in program	29	30

Table 2D--Corn production economic costs and returns, including direct Government payments and program participation costs, Northeast, 1991-92

Item	1991	1992
Dollars per planted acre		
Gross value of production (including direct Government payments):		
Market value of corn grain	156.42	173.60
Direct government payments 1/	12.12	20.42
Haying/grazing on ACR and CU acreage	0.26	0.23
Total, gross value of production	168.80	194.25
Economic (full ownership) costs:		
Variable cash expenses	130.72	126.72
General farm overhead	6.49	6.83
Taxes and insurance	21.62	22.33
Capital replacement	16.54	17.66
Operating capital	3.56	2.26
Other nonland capital	8.51	9.52
Land	29.42	29.49
Unpaid labor	30.45	31.56
Total, economic costs	247.31	246.37
Residual returns to management and risk	-78.51	-52.12
Harvest-period price (dollars/bu.)	2.55	2.29
Yield (bu./planted acre)	61.34	75.81
Percent of planted corn acres in program	29	30

1/ Deficiency payments. Payments are not adjusted for payment limitations. 2/ Cost of custom operations, technical services, and commercial drying. 3/ Cost of purchased irrigation water, cover crop seed, and other input items.

Table 3A--Corn production cash costs and returns, Southeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Corn	199.64	205.67	248.03	205.43	120.28	145.03	204.11	246.64	195.49	224.24	255.33
Total, gross value of production	199.64	205.67	248.03	205.43	120.28	145.03	204.11	246.64	195.49	224.24	255.33
Cash expenses:											
Seed	15.13	15.04	17.02	17.26	19.45	18.98	18.61	21.41	21.23	18.74	18.90
Fertilizer, lime, and gypsum	64.95	64.08	66.73	61.60	46.10	43.98	52.79	55.72	51.18	55.73	55.17
Chemicals	16.60	17.49	17.96	18.03	21.62	21.68	21.99	23.08	24.28	25.04	25.47
Custom operations 1/	10.54	10.12	10.88	8.54	5.75	5.92	6.46	6.35	6.72	3.77	3.92
Fuel, lube, and electricity	19.11	15.20	14.75	16.64	10.61	12.38	11.50	15.24	16.13	14.67	14.75
Repairs	10.16	9.50	10.79	10.61	8.88	9.54	9.68	11.88	10.86	16.17	17.72
Hired labor	3.98	3.92	4.21	4.36	10.01	9.77	9.64	10.15	10.77	16.47	16.11
Other variable cash expenses 2/	0.18	0.18	0.18	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total, variable cash expenses	140.65	135.53	142.52	137.22	122.42	122.25	130.67	143.83	141.17	150.59	152.04
General farm overhead	10.99	10.26	10.44	7.38	7.32	7.08	7.64	7.27	8.41	9.36	9.57
Taxes and insurance	6.68	6.68	7.47	7.80	7.99	8.42	8.45	9.08	8.61	11.75	12.72
Interest	41.48	32.99	34.20	22.43	11.50	8.78	8.33	8.25	9.10	8.64	7.29
Total, fixed cash expenses	59.15	49.93	52.11	37.61	26.81	24.28	24.42	24.60	26.12	29.75	29.58
Total, cash expenses	199.79	185.46	194.63	174.83	149.23	146.53	155.09	168.43	167.29	180.34	181.62
Gross value of production less cash expenses	-0.56	20.39	53.49	30.74	-28.91	-1.32	49.02	78.21	28.20	43.90	73.71
Harvest-period price (dollars/bu.)	2.14	3.67	2.79	2.34	1.66	1.79	2.87	2.44	2.43	2.51	2.26
Yield (bu./planted acre)	93.29	56.04	88.90	87.79	72.46	81.02	71.12	101.08	80.45	89.34	112.98

Table 3B--Corn production economic costs and returns, Southeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Corn	199.64	205.67	248.03	205.43	120.28	145.03	204.11	246.64	195.49	224.24	255.33
Total, gross value of production	199.64	205.67	248.03	205.43	120.28	145.03	204.11	246.64	195.49	224.24	255.33
Economic (full ownership) costs:											
Variable cash expenses	140.64	135.53	142.52	137.22	122.42	122.25	130.67	143.83	141.17	150.59	152.04
General farm overhead	10.99	10.26	10.44	7.38	7.32	7.08	7.64	7.27	8.41	9.36	9.57
Taxes and insurance	6.68	6.68	7.47	7.80	7.99	8.42	8.45	9.08	8.61	11.75	12.72
Capital replacement	23.19	22.93	24.77	24.05	22.93	23.64	24.31	28.39	27.54	25.05	27.60
Operating capital	5.90	4.71	5.37	4.10	2.59	2.84	3.51	4.34	4.01	4.10	2.72
Other nonland capital	4.05	3.48	4.82	4.51	4.32	4.44	5.30	7.63	7.79	9.29	10.79
Land	36.70	33.48	42.84	35.43	23.33	26.41	34.31	43.45	32.75	44.69	49.61
Unpaid labor	11.31	11.16	11.98	12.41	18.60	19.36	21.43	21.30	22.49	19.59	20.63
Total, economic costs	239.46	228.23	250.21	232.90	209.50	214.44	235.62	265.29	252.77	274.42	285.68
Residual returns to management and risk	-40.24	-22.38	-2.09	-27.33	-89.18	-69.23	-31.51	-18.65	-57.28	-50.18	-30.35
Harvest-period price (dollars/bu.)	2.14	3.67	2.79	2.34	1.66	1.79	2.87	2.44	2.43	2.51	2.26
Yield (bu./planted acre)	93.29	56.04	88.90	87.79	72.46	81.02	71.12	101.08	80.45	89.34	112.98

1/ Cost of custom operations, technical services and commercial drying. 2/ Cost of purchased irrigation water.

Note: Survey base changed in 1986 and 1991.

Table 3C--Corn production cash costs and returns, including direct Government payments and program participation costs, Southeast, 1991-92

Item	1991	1992
Dollars per planted acre		
Gross value of production (including direct Government payments):		
Market value of corn grain	224.24	255.33
Direct government payments 1/	19.10	28.36
Haying/grazing on ACR and CU acreage	0.47	0.34
Total, gross value of production	243.81	284.03
Cash expenses:		
Seed	18.74	18.90
Fertilizer, lime, and gypsum	55.73	55.17
Chemicals	25.07	25.49
Custom operations 2/	3.77	3.92
Fuel, lube, and electricity	14.83	14.85
Repairs	16.29	17.82
Hired labor	16.55	16.17
Other variable cash expenses 3/	0.61	0.41
Total, variable cash expenses	151.59	152.73
General farm overhead	10.02	10.52
Taxes and insurance	13.95	14.59
Interest	9.18	7.95
Total, fixed cash expenses	33.15	33.06
Total, cash expenses	184.74	185.79
Gross value of production less cash expenses	59.07	98.24
Harvest-period price (dollars/bu.)	2.51	2.26
Yield (bu./planted acre)	89.34	112.98
Percent of planted corn acres in program	42	41

Table 3D--Corn production cash costs and returns, including direct Government payments and program participation costs, Southeast, 1991-92

Item	1991	1992
Dollars per planted acre		
Gross value of production (excluding direct Government payments):		
Market value of corn grain	224.24	255.33
Direct government payments 1/	19.10	28.36
Haying/grazing on ACR and CU acreage	0.47	0.34
Total, gross value of production	243.81	284.03
Economic (full ownership) costs:		
Variable cash expenses	151.59	152.73
General farm overhead	10.02	10.52
Taxes and insurance	13.95	14.59
Capital replacement	25.14	27.70
Operating capital	4.12	2.73
Other nonland capital	9.35	10.84
Land	47.35	54.57
Unpaid labor	19.64	20.66
Total, economic costs	281.16	294.34
Residual returns to management and risk	-37.35	-10.31
Harvest-period price (dollars/bu.)	2.51	2.26
Yield (bu./planted acre)	89.34	112.98
Percent of planted corn acres in program	42	41

1/ Deficiency payments. Payments are not adjusted for payment limitations. 2/ Cost of custom operations, technical services, and commercial drying. 3/ Cost of purchased irrigation water, cover crop seed, and other input items.

Table 4A--Corn production cash costs and returns, North Central, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Corn	250.93	256.83	274.88	254.90	171.70	192.31	197.61	260.44	265.05	247.82	272.90
Total, gross value of production	250.93	256.83	274.88	254.90	171.70	192.31	197.61	260.44	265.05	247.82	272.90
Cash expenses:											
Seed	16.86	17.39	18.62	18.84	19.39	19.11	19.21	21.22	20.70	21.42	21.96
Fertilizer, lime, and gypsum	54.27	52.63	55.28	55.04	44.45	41.10	50.77	51.76	46.60	45.26	43.55
Chemicals	18.88	19.81	20.31	20.29	22.19	22.22	22.59	23.66	24.88	22.94	23.91
Custom operations 1/	7.37	7.25	7.47	7.56	5.42	5.43	4.47	5.76	6.05	8.80	9.18
Fuel, lube, and electricity	22.59	17.80	16.67	20.20	16.69	16.72	13.00	17.46	21.39	12.58	12.65
Repairs	9.57	8.76	9.75	9.64	6.64	6.68	6.27	7.16	7.61	12.15	13.87
Hired labor	3.44	3.07	3.41	3.59	6.93	6.90	6.00	7.21	7.64	5.99	6.29
Other variable cash expenses 2/	0.16	0.16	0.16	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total, variable cash expenses	133.14	126.87	131.67	135.32	121.71	118.16	123.21	134.23	134.87	129.14	131.41
General farm overhead	16.82	14.28	14.61	10.49	11.53	11.26	11.94	11.56	13.37	9.65	9.84
Taxes and insurance	14.63	13.84	18.59	18.96	15.59	16.80	16.60	16.84	16.86	18.21	18.47
Interest	48.45	45.77	47.29	34.32	24.08	18.56	17.14	17.44	19.20	15.49	13.65
Total, fixed cash expenses	79.90	73.89	80.49	63.77	51.20	46.62	45.68	45.84	49.43	43.35	41.96
Total, cash expenses	213.04	200.76	212.16	199.09	172.91	164.78	168.89	180.07	184.30	172.49	173.37
Gross value of production less cash expenses	37.60	55.96	62.88	56.23	-1.26	27.35	28.68	80.37	80.75	75.33	99.53
Harvest-period price (dollars/bu.)	2.09	3.17	2.53	2.09	1.36	1.53	2.56	2.18	2.16	2.29	2.01
Yield (bu./planted acre)	120.06	81.02	108.65	121.96	126.25	125.69	77.19	119.47	122.71	108.22	135.77

Table 4B--Corn production economic costs and returns, North Central, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Corn	250.93	256.83	274.88	254.90	171.70	192.31	197.61	260.44	265.05	247.82	272.90
Total, gross value of production	250.93	256.83	274.88	254.90	171.70	192.31	197.61	260.44	265.05	247.82	272.90
Economic (full ownership) costs:											
Variable cash expenses	133.14	126.87	131.67	135.32	121.71	118.16	123.21	134.23	134.87	129.14	131.41
General farm overhead	16.82	14.28	14.61	10.49	11.53	11.26	11.94	11.56	13.37	9.65	9.84
Taxes and insurance	14.63	13.84	18.59	18.96	15.59	16.80	16.64	16.84	16.86	18.21	18.47
Capital replacement	34.01	34.11	34.18	34.87	30.55	30.83	31.41	34.72	36.67	22.57	25.86
Operating capital	6.05	4.76	5.44	4.34	2.54	2.76	3.45	4.20	3.82	3.51	2.35
Other nonland capital	5.98	5.18	6.80	6.55	5.26	5.21	5.95	8.00	9.22	8.75	10.51
Land	54.58	50.11	75.85	60.58	43.14	45.44	47.02	58.86	60.78	66.40	71.89
Unpaid labor	9.80	8.72	9.69	10.21	19.86	20.71	21.75	22.99	24.30	24.62	25.93
Total, economic costs	275.00	257.87	296.83	281.32	250.18	251.17	261.33	291.40	299.89	282.85	296.26
Residual returns to management and risk	-24.36	-1.15	-21.79	-26.00	-78.53	-59.04	-63.76	-30.96	-34.84	-35.03	-23.36
Harvest-period price (dollars/bu.)	2.09	3.17	2.53	2.09	1.36	1.53	2.56	2.18	2.16	2.29	2.01
Yield (bu./planted acre)	120.06	81.02	108.65	121.96	126.25	125.69	77.19	119.47	122.71	108.22	135.77

1/ Cost of custom operations, technical services and commercial drying. 2/ Cost of purchased irrigation water.

Note: Survey base changed in 1986 and 1991.

Table 4C--Corn production cash costs and returns, including direct Government payments and program participation costs, North Central, 1991-92

Item	1991	1992
Dollars per planted acre		
Gross value of production (including direct Government payments):		
Market value of corn grain	247.82	272.90
Direct government payments 1/	29.19	50.75
Haying/grazing on ACR and CU acreage	0.30	0.22
Total, gross value of production	277.31	323.87
Cash expenses:		
Seed	21.42	21.96
Fertilizer, lime, and gypsum	45.26	43.55
Chemicals	23.01	23.96
Custom operations 2/	8.80	9.18
Fuel, lube, and electricity	12.89	12.82
Repairs	12.38	13.92
Hired labor	6.04	6.32
Other variable cash expenses 3/	0.57	0.37
Total, variable cash expenses	130.37	132.08
General farm overhead	10.70	11.22
Taxes and insurance	19.69	19.72
Interest	16.85	15.26
Total, fixed cash expenses	47.24	46.20
Total, cash expenses	177.61	178.28
Gross value of production less cash expenses	99.70	145.59
Harvest-period price (dollars/bu.)	2.29	2.01
Yield (bu./planted acre)	108.22	135.77
Percent of planted corn acres in program	70	69

Table 4D--Corn production cash costs and returns, including direct Government payments and program participation costs, North Central, 1991-92

Item	1991	1992
Dollars per planted acre		
Gross value of production (including direct Government payments):		
Market value of corn grain	247.82	272.90
Direct government payments 1/	29.19	50.75
Haying/grazing on ACR and CU acreage	0.30	0.22
Total, gross value of production	277.31	323.87
Economic (full ownership) costs:		
Variable cash expenses	130.37	132.08
General farm overhead	10.70	11.22
Taxes and insurance	19.69	19.72
Capital replacement	22.82	25.91
Operating capital	3.55	2.36
Other nonland capital	8.90	10.61
Land	73.41	84.42
Unpaid labor	24.84	26.09
Total, economic costs	294.28	312.41
Residual returns to management and risk	-16.97	11.46
Harvest-period price (dollars/bu.)	2.29	2.01
Yield (bu./planted acre)	108.22	135.77
Percent of planted corn acres in program	70	69

1/ Deficiency payments. Payments are not adjusted for payment limitations. 2/ Cost of custom operations, technical services, and commercial drying. 3/ Cost of purchased irrigation water, cover crop seed, and other input items.

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Corn	232.83	244.55	264.15	257.53	169.67	183.22	274.25	235.52	245.56	295.70	300.73
Total, gross value of production	232.83	244.55	264.15	257.53	169.67	183.22	274.25	235.52	245.56	295.70	300.73
Cash expenses:											
Seed	16.21	15.38	17.07	17.92	18.52	17.81	17.83	20.06	19.64	22.81	23.25
Fertilizer, lime, and gypsum	29.40	28.94	33.46	38.47	25.86	23.34	26.56	29.69	26.73	40.71	40.08
Chemicals	16.21	17.09	16.98	17.17	13.92	13.89	14.12	14.80	15.71	20.63	21.94
Custom operations 1/	5.61	5.71	5.58	5.85	5.50	5.57	5.43	6.07	6.23	11.51	11.96
Fuel, lube, and electricity	36.24	33.23	29.60	33.83	27.13	28.26	29.18	30.22	35.23	39.49	37.26
Repairs	15.19	15.75	15.74	15.83	11.82	11.89	12.49	12.95	13.36	16.52	17.57
Hired labor	4.57	4.52	4.84	5.04	9.56	9.51	9.86	10.71	10.70	8.85	9.57
Other variable cash expenses 2/	1.63	1.63	1.65	1.64	1.14	1.11	1.15	1.14	1.14	1.76	1.75
Total, variable cash expenses	125.05	122.25	124.93	135.75	113.45	111.38	116.62	125.64	128.74	162.28	163.38
General farm overhead	15.71	17.81	17.77	11.66	8.26	8.00	8.51	8.21	9.50	13.52	13.78
Taxes and insurance	14.92	15.39	16.63	17.38	9.75	10.02	10.06	10.02	10.14	18.33	19.14
Interest	46.93	51.12	48.22	31.14	16.21	12.20	11.12	11.44	12.53	24.25	21.38
Total, fixed cash expenses	77.56	84.32	82.62	60.18	34.22	30.22	29.69	29.67	32.17	56.10	54.30
Total, cash expenses	202.61	206.57	207.55	195.93	147.67	141.60	146.31	155.31	160.91	218.38	217.68
Gross value of production less cash expenses	29.94	38.17	56.24	61.23	22.42	41.67	128.31	80.21	84.65	77.32	83.05
Harvest-period price (dollars/bu.)	2.28	3.08	2.55	2.21	1.48	1.59	2.60	2.21	2.19	2.31	2.14
Yield (bu./planted acre)	102.12	79.40	103.59	116.53	114.64	115.23	105.48	106.57	112.13	128.01	140.53

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Corn	232.83	244.55	264.15	257.53	169.67	183.22	274.25	235.52	245.56	295.70	300.73
Total, gross value of production	232.83	244.55	264.15	257.53	169.67	183.22	274.25	235.52	245.56	295.70	300.73
Economic (full ownership) costs:											
Variable cash expenses	125.05	122.25	124.93	135.75	113.45	111.38	116.62	125.64	128.74	162.28	163.38
General farm overhead	15.71	17.81	17.77	11.66	8.26	8.00	8.51	8.21	9.50	13.52	13.78
Taxes and insurance	14.92	15.39	16.63	17.38	9.75	10.02	10.06	10.02	10.14	18.33	19.14
Capital replacement	36.38	38.09	37.27	39.73	29.20	29.46	30.92	32.81	34.17	43.02	45.76
Operating capital	5.85	4.59	5.26	4.47	2.41	2.64	3.20	4.02	3.69	4.41	2.92
Other nonland capital	6.62	6.18	7.84	7.75	5.52	5.47	6.59	8.40	9.59	14.82	16.56
Land	49.44	49.73	56.25	47.69	44.02	49.41	77.94	61.18	66.84	55.36	49.10
Unpaid labor	13.00	12.86	13.77	14.34	19.15	17.70	19.05	20.36	20.65	20.20	22.15
Total, economic costs	266.98	266.90	279.72	278.77	231.76	234.08	272.89	270.64	283.32	331.94	332.79
Residual returns to management and risk	-34.43	-22.16	-15.93	-21.61	-61.67	-50.81	1.73	-35.12	-37.76	-36.24	-32.06
Harvest-period price (dollars/bu.)	2.28	3.08	2.55	2.21	1.48	1.59	2.60	2.21	2.19	2.31	2.14
Yield (bu./planted acre)	102.12	79.40	103.59	116.53	114.64	115.23	105.48	106.57	112.13	128.01	140.53
1/ Cost of custom operations, technical services and commercial drying. 2/ Cost of purchased irrigated water.											
Note: Survey base changed in 1986 and 1991.											

Table 5C--Corn production cash costs and returns, including direct Government payments and program participation costs, Plains, 1991-92

Item	1991	1992
Dollars per planted acre		
Gross value of production (including direct Government payments):		
Market value of corn grain	295.70	300.73
Direct government payments 1/	29.52	49.06
Haying/grazing on ACR and CU acreage	0.82	0.62
Total, gross value of production	326.04	350.41
Cash expenses:		
Seed	22.81	23.25
Fertilizer, lime, and gypsum	40.71	40.08
Chemicals	20.85	22.10
Custom operations 2/	11.51	11.96
Fuel, lube, and electricity	39.98	37.56
Repairs	16.96	17.64
Hired labor	8.98	9.67
Other variable cash expenses 3/	2.60	2.36
Total, variable cash expenses	164.40	164.62
General farm overhead	13.93	14.60
Taxes and insurance	19.53	20.27
Interest	24.70	22.36
Total, fixed cash expenses	58.16	57.23
Total, cash expenses	222.56	221.85
Gross value of production less cash expenses	103.48	128.56
Harvest-period price (dollars/bu.)	2.31	2.14
Yield (bu./planted acre)	128.01	140.53
Percent of planted corn acres in program	77	73

Table 5D--Corn production cash costs and returns, including direct Government payments and program participation costs, Plains, 1991-92

Item	1991	1992
Dollars per planted acre		
Gross value of production (including direct Government payments):		
Market value of corn grain	295.70	300.73
Direct government payments 1/	29.52	49.06
Haying/grazing on ACR and CU acreage	0.82	0.62
Total, gross value of production	326.04	350.41
Economic (full ownership) costs:		
Variable cash expenses	164.40	164.62
General farm overhead	13.93	14.60
Taxes and insurance	19.53	20.27
Capital replacement	43.49	45.84
Operating capital	4.47	2.94
Other nonland capital	15.08	16.76
Land	61.79	58.92
Unpaid labor	20.43	22.33
Total, economic costs	343.12	346.28
Residual returns to management and risk	-17.08	4.13
Harvest-period price (dollars/bu.)	2.31	2.14
Yield (bu./planted acre)	128.01	140.53
Percent of planted corn acres in program	77	73

1/ Deficiency payments. Payments are not adjusted for payment limitations. 2/ Cost of custom operations, technical services, and commercial drying. 3/ Cost of purchased irrigation water, cover crop seed, and other input items.

Figure 8

Grain Sorghum Production Regions

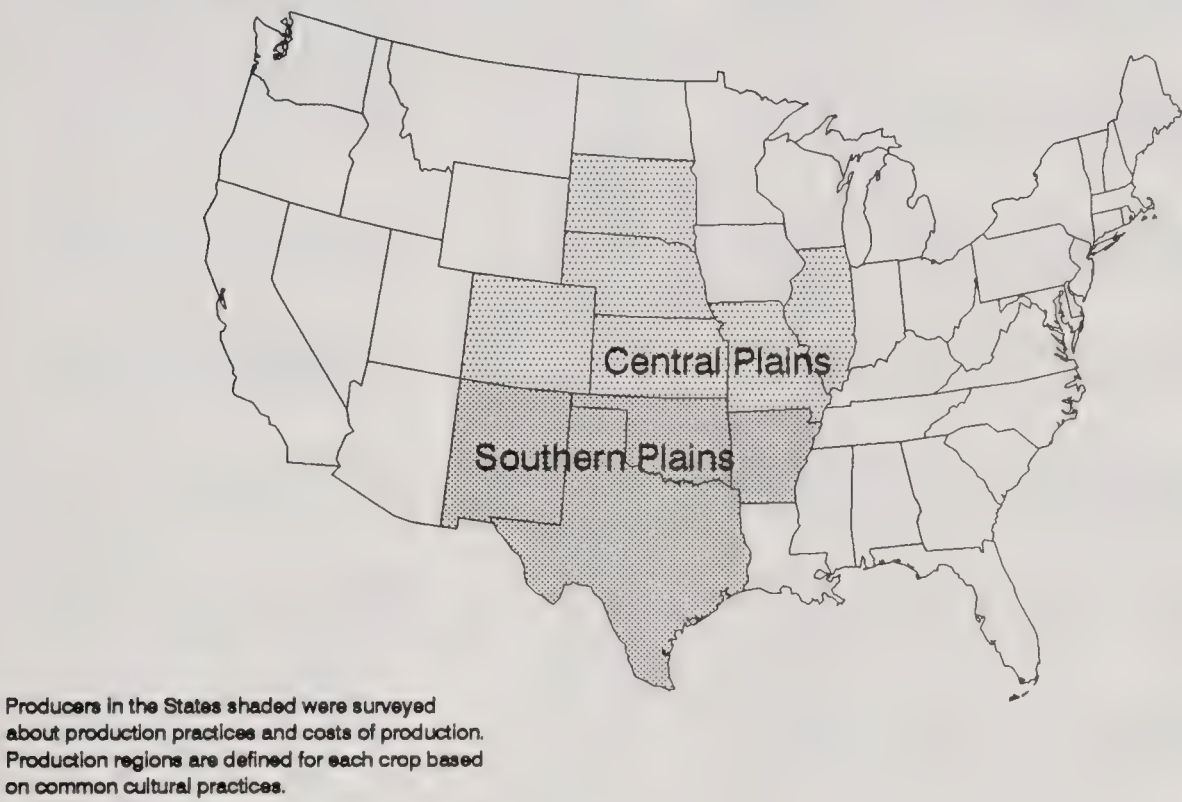
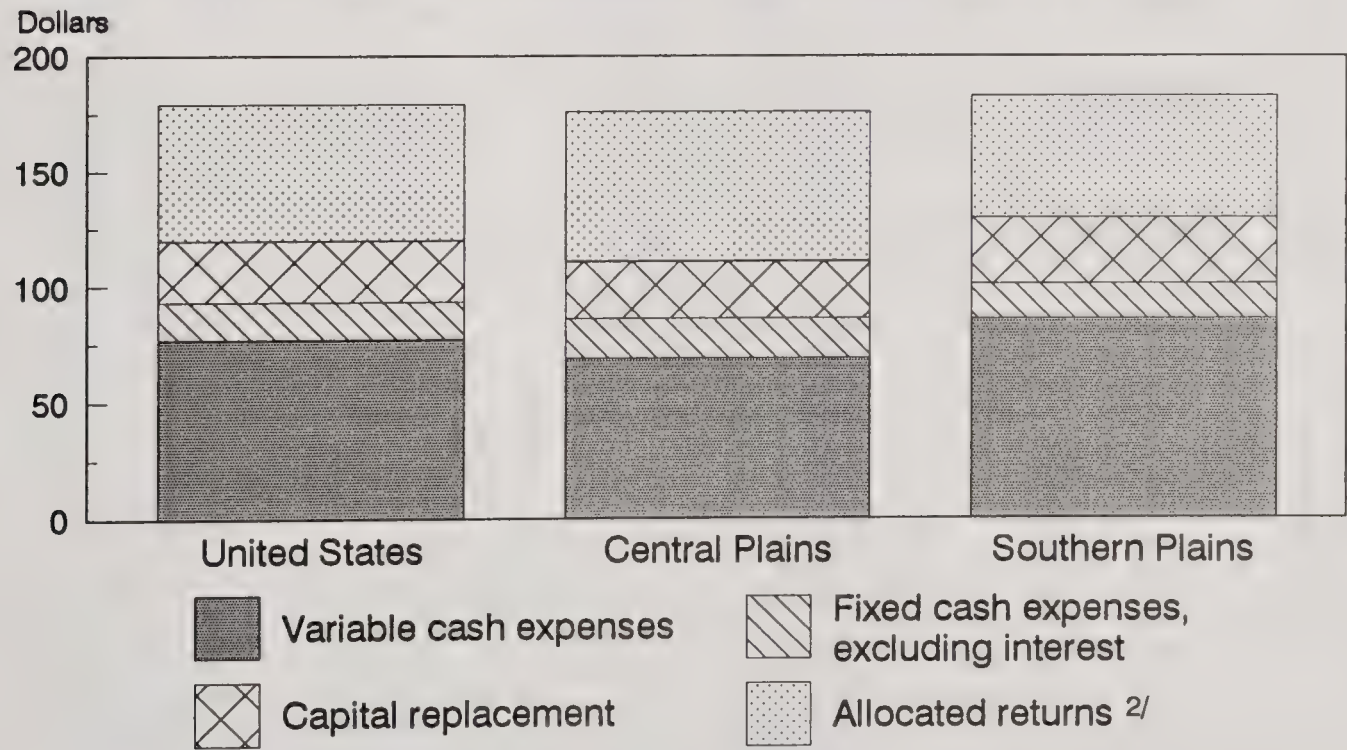


Figure 9

Grain Sorghum economic costs per planted acre, 1992 ^{1/}



^{1/} Excluding government payments. ^{2/} Income foregone by allocating resources owned by the operation (operating and other nonland capital, land, and unpaid labor) to grain sorghum production rather than some other income-producing use.

Table 6A--U.S. grain sorghum production cash costs and returns, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments): Sorghum	121.36	131.58	123.73	124.99	91.57	96.18	141.59	105.24	117.49	124.90	127.67
Total, gross value of production	121.36	131.58	123.73	124.99	91.57	96.18	141.59	105.24	117.49	124.90	127.67
Cash expenses:											
Seed	3.70	3.89	3.76	3.81	3.80	4.74	3.59	5.22	5.43	5.52	5.70
Fertilizer	20.15	19.12	20.49	20.34	17.65	15.33	17.19	20.15	17.71	18.42	18.82
Chemicals	8.64	9.26	9.41	9.71	9.73	9.87	10.22	9.61	10.11	10.97	11.18
Custom operations 1/	4.12	3.92	3.71	3.96	4.00	4.02	3.95	4.19	4.34	4.46	4.88
Fuel, lube, and electricity	19.12	17.08	14.80	14.52	10.03	11.23	11.01	13.57	14.80	15.51	14.79
Repairs	10.05	10.30	9.58	7.75	7.62	7.72	7.95	10.79	10.71	11.54	12.70
Hired labor	2.73	2.63	2.53	2.39	2.54	2.47	2.49	7.42	7.45	7.84	8.59
Other variable cash expenses 2/	0.65	0.56	0.58	0.13	0.13	0.11	0.10	0.38	0.39	0.41	0.41
Total, variable cash expenses	69.16	66.76	64.87	62.61	55.50	55.49	56.50	71.33	70.94	74.67	77.07
General farm overhead	8.11	7.65	7.68	5.67	6.01	6.83	9.40	6.32	5.28	4.64	5.88
Taxes and insurance	7.45	7.82	8.34	7.51	7.92	8.32	8.72	13.15	10.02	8.90	10.35
Interest	22.19	20.76	19.94	13.71	11.46	11.32	12.99	8.09	8.79	8.10	8.41
Total, fixed cash expenses	37.75	36.23	35.96	26.89	25.39	26.47	31.11	27.56	24.09	21.64	24.64
Total, cash expenses	106.91	102.99	100.83	89.50	80.89	81.96	87.61	98.89	95.03	96.31	101.71
Gross value of production less cash expenses	14.45	28.59	22.90	35.49	10.68	14.22	53.98	6.35	22.46	28.59	25.96
Harvest-period price (dollars/bu.)	2.11	2.84	2.34	1.90	1.37	1.40	2.36	2.07	2.07	2.27	1.88
Yield (bu./planted acre)	57.64	46.29	52.81	65.89	66.91	68.62	60.07	50.84	56.76	55.02	67.91

Table 6B--U.S. grain sorghum production economic costs and returns, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments): Sorghum	121.36	131.58	123.73	124.99	91.57	96.18	141.59	105.24	117.49	124.90	127.67
Total, gross value of production	121.36	131.58	123.73	124.99	91.57	96.18	141.59	105.24	117.49	124.90	127.67
Economic (full ownership) costs:											
Variable cash expenses	69.16	66.76	64.87	62.61	55.50	55.49	56.50	71.33	70.94	74.67	77.07
General farm overhead	8.11	7.65	7.68	5.67	6.01	6.83	9.40	6.32	5.28	4.64	5.88
Taxes and insurance	7.45	7.82	8.34	7.51	7.92	8.32	8.72	13.15	10.02	8.90	10.35
Capital replacement	23.87	26.74	23.93	22.56	23.04	23.13	24.46	22.77	22.75	24.51	26.77
Operating capital	2.90	2.29	2.42	2.17	1.32	1.47	1.73	2.87	2.65	2.03	1.38
Other nonland capital	4.10	4.04	4.73	4.11	4.19	4.18	5.10	15.45	9.86	11.85	13.50
Land	28.23	31.18	28.86	33.79	25.51	26.47	37.20	27.46	25.55	25.70	25.92
Unpaid labor	10.92	10.52	10.14	9.56	10.17	9.88	9.98	16.95	17.10	17.55	18.42
Total, economic costs	154.74	157.00	150.97	147.98	133.66	135.77	153.09	176.30	164.15	169.85	179.29
Residual returns to management and risk	-33.38	-25.42	-27.24	-22.99	-42.09	-39.59	-11.50	-71.06	-46.66	-44.95	-51.62
Harvest-period price (dollars/bu.)	2.11	2.84	2.34	1.90	1.37	1.40	2.36	2.07	2.07	2.27	1.88
Yield (bu./planted acre)	57.64	46.29	52.81	65.89	66.91	68.62	60.07	50.84	56.76	55.02	67.91

1/ Cost of custom operations and technical services. 2/ Cost of purchased irrigation water.
Note: Survey base changed in 1985 and 1990.

Table 6C--U.S. grain sorghum production cash costs and returns,
including direct Government payments and program
participation costs, 1990-92

Item	1990	1991	1992
Dollars per planted acre			
Gross value of production (including direct Government payments):			
Market value of sorghum	117.49	124.90	127.67
Direct Government payments 1/	25.62	21.81	28.34
Haying/grazing on ACR and CU acreage	0.21	0.19	0.73
Total, gross value of production	143.32	146.90	156.74
Cash expenses:			
Seed	5.43	5.52	5.70
Fertilizer	17.71	18.42	18.82
Chemicals	10.43	11.31	11.55
Custom operations 2/	4.34	4.46	4.88
Fuel, lube, and electricity	16.06	16.96	15.81
Repairs	11.52	12.57	13.48
Hired labor	8.06	8.48	9.13
Other variable cash expenses 3/	0.67	0.81	0.79
Total, variable cash expenses	74.22	78.53	80.16
General farm overhead	5.64	4.91	6.20
Taxes and insurance	10.61	9.36	10.85
Interest	9.39	8.61	8.89
Total, fixed cash expenses	25.64	22.88	25.94
Total, cash expenses	99.86	101.41	106.10
Gross value of production less cash expenses	43.46	45.49	50.64
Harvest-period price (dollars/bu.)	2.07	2.27	1.88
Yield (bu./planted acre)	56.76	55.02	67.91
Percent of planted sorghum acres in program	68	63	60

Table 6D--U.S. grain sorghum production economic costs and returns,
including direct Government payments and program
participation costs, 1990-92

Item	1990	1991	1992
Dollars per planted acre			
Gross value of production (including direct Government payments):			
Market value of sorghum	117.49	124.90	127.67
Direct Government payments 1/	25.83	22.00	28.34
Haying/grazing on ACR and CU acreage	0.21	0.19	0.73
Total, gross value of production	143.53	147.09	156.74
Economic (full ownership) costs:			
Variable cash expenses	74.22	78.53	80.16
General farm overhead	5.64	4.91	6.20
Taxes and insurance	10.61	9.36	10.85
Capital replacement	24.58	26.90	28.55
Operating capital	2.85	2.17	1.49
Other nonland capital	10.62	13.09	14.36
Land	27.30	27.47	27.37
Unpaid labor	18.25	18.74	19.44
Total, economic costs	174.07	181.17	188.42
Residual returns to management and risk	-30.54	-34.08	-31.68
Harvest-period price (dollars/bu.)	2.07	2.27	1.88
Yield (bu./planted acre)	56.76	55.02	67.91
Percent of planted sorghum acres in program	68	63	60

1/ Deficiency payments. Payments are not adjusted for payment limitations.

2/ Cost of custom operations, technical services, and commercial drying.

3/ Cost of purchased irrigation water, cover seed, and other input items.

Table 7A--Grain sorghum production cash costs and returns, Central Plains, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments): Sorghum	126.18	127.27	120.36	126.18	94.60	98.65	139.05	104.39	125.41	122.78	134.00
Total, gross value of production	126.18	127.27	120.36	126.18	94.60	98.65	139.05	104.39	125.41	122.78	134.00
Cash expenses:											
Seed	3.27	3.50	3.55	3.52	3.55	3.78	3.39	4.90	5.06	5.02	5.28
Fertilizer	20.85	19.04	21.79	20.64	18.02	15.71	17.46	19.63	17.47	18.02	18.13
Chemicals	9.87	10.26	10.46	11.76	11.80	11.67	11.94	11.09	11.67	12.62	13.42
Custom operations 1/	2.85	2.81	2.74	2.93	2.93	3.04	3.04	3.08	3.17	3.15	3.19
Fuel, lube, and electricity	16.13	14.79	12.14	11.28	8.02	9.11	8.67	10.29	11.84	11.65	10.94
Repairs	9.34	9.56	9.03	7.18	7.09	7.25	7.33	10.31	10.38	10.67	11.87
Hired labor	2.28	2.27	2.27	1.91	2.04	1.96	2.03	5.36	5.28	5.73	5.99
Other variable cash expenses 2/	0.25	0.22	0.23	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
Total, variable cash expenses	64.85	62.45	62.21	59.22	53.45	52.52	53.86	64.67	64.88	66.87	68.83
General farm overhead	8.77	7.76	7.75	5.25	4.86	7.30	9.58	6.25	5.30	4.64	5.76
Taxes and insurance	9.40	9.53	9.82	8.58	9.03	9.31	9.60	14.23	11.00	9.75	11.20
Interest	26.46	23.03	21.96	14.81	10.70	12.13	13.52	9.48	10.31	9.55	10.21
Total, fixed cash expenses	44.63	40.32	39.53	28.64	24.59	28.74	32.70	29.96	26.61	23.94	27.17
Total, cash expenses	109.48	102.77	101.74	87.86	78.04	81.26	86.56	94.63	91.49	90.81	96.00
Gross value of production less cash expenses	16.70	24.50	18.62	38.32	16.56	17.39	52.49	9.76	33.92	31.97	38.00
Harvest-period price (dollars/bu.)	2.02	2.78	2.22	1.80	1.26	1.36	2.29	1.98	1.93	2.18	1.74
Yield (bu./planted acre)	62.59	45.73	54.29	70.21	75.28	72.69	60.68	52.72	64.98	56.32	77.01

Table 7B--Grain sorghum production economic costs and returns, Central Plains, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments): Sorghum	126.18	127.27	120.36	126.18	94.60	98.65	139.05	104.39	125.41	122.78	134.00
Total, gross value of production	126.18	127.27	120.36	126.18	94.60	98.65	139.05	104.39	125.41	122.78	134.00
Economic (full ownership) costs:											
Variable cash expenses	64.85	62.45	62.21	59.22	53.45	52.52	53.86	64.67	64.88	66.87	68.83
General farm overhead	8.77	7.76	7.75	5.25	4.86	7.30	9.58	6.25	5.30	4.64	5.76
Taxes and insurance	9.40	9.53	9.82	8.58	9.03	9.31	9.60	14.23	11.00	9.75	11.20
Capital replacement	24.17	28.20	24.14	21.93	22.68	22.70	22.98	21.48	21.88	22.54	24.90
Operating capital	2.75	2.23	2.37	2.12	1.31	1.43	1.71	2.60	2.42	1.82	1.23
Other nonland capital	4.43	4.42	4.98	4.17	4.30	4.25	4.96	16.09	9.99	11.51	13.31
Land	29.16	30.24	27.89	34.40	26.32	27.14	36.67	30.74	28.07	26.21	29.22
Unpaid labor	9.14	9.07	9.10	7.63	8.17	7.84	8.14	18.92	19.25	19.76	21.44
Total, economic costs	152.67	153.90	148.26	143.30	130.12	132.49	147.50	174.98	162.79	163.10	175.89
Residual returns to management and risk	-26.49	-26.63	-27.90	-17.12	-35.52	-33.84	-8.45	-70.59	-37.38	-40.32	-41.89
Harvest-period price (dollars/bu.)	2.02	2.78	2.22	1.80	1.26	1.36	2.29	1.98	1.93	2.18	1.74
Yield (bu./planted acre)	62.59	45.73	54.29	70.21	75.28	72.69	60.68	52.72	64.98	56.32	77.01
1/ Cost of custom operations and technical services. 2/ Cost of purchased irrigation water.											
Note: Survey base changed in 1985 and 1990.											

Table 7C--Grain sorghum production cash costs and returns,
including direct Government payments and program
participation costs, Central Plains, 1990-92

Item	1990	1991	1992
Dollars per planted acre			
Gross value of production (including direct Government payments):			
Market value of sorghum	125.41	122.78	134.00
Direct Government payments 1/	28.17	22.21	33.32
Haying/grazing on ACR and CU acreage	0.26	0.24	1.07
Total, gross value of production	153.84	145.23	168.39
Cash expenses:			
Seed	5.06	5.02	5.28
Fertilizer	17.47	18.02	18.13
Chemicals	11.92	12.87	13.69
Custom operations 2/	3.17	3.15	3.19
Fuel, lube, and electricity	12.27	12.05	11.31
Repairs	10.78	11.09	12.29
Hired labor	5.46	5.92	6.18
Other variable cash expenses 3/	0.31	0.45	0.30
Total, variable cash expenses	66.44	68.57	70.37
General farm overhead	5.51	4.80	5.97
Taxes and insurance	11.42	10.06	11.59
Interest	10.65	9.83	10.53
Total, fixed cash expenses	27.58	24.69	28.09
Total, cash expenses	94.02	93.26	98.46
Gross value of production less cash expenses	59.82	51.97	69.93
Harvest-period price (dollars/bu.)	1.93	2.18	1.74
Yield (bu./planted acre)	64.98	56.32	77.01
Percent of planted sorghum acres in program	69	64	68

Table 7D--Grain sorghum production economic costs and returns,
including direct Government payments and program
participation costs, Central Plains, 1990-92

Item	1990	1991	1992
Dollars per planted acre			
Gross value of production (including direct Government payments):			
Market value of sorghum	125.41	122.78	134.00
Direct Government payments 1/	28.17	22.21	33.32
Haying/grazing on ACR and CU acreage	0.26	0.24	1.07
Total, gross value of production	153.84	145.23	168.39
Economic (full ownership) costs:			
Variable cash expenses	66.44	68.57	70.37
General farm overhead	5.51	4.80	5.97
Taxes and insurance	11.42	10.06	11.59
Capital replacement	22.70	23.42	25.78
Operating capital	2.51	1.88	1.27
Other nonland capital	10.37	12.03	13.79
Land	29.17	27.18	30.18
Unpaid labor	20.01	20.52	22.21
Total, economic costs	168.13	168.46	181.16
Residual returns to management and risk	-14.29	-23.23	-12.77
Harvest-period price (dollars/bu.)	1.93	2.18	1.74
Yield (bu./planted acre)	64.98	56.32	77.01
Percent of planted sorghum acres in program	69	64	68

- 1/ Deficiency payments. Payments are not adjusted for payment limitations.
2/ Cost of custom operations, technical services and commercial drying.
3/ Cost of purchased irrigation water, cover crop seed, and other input items.

Table 8A--Grain sorghum production cash costs and returns, Southern Plains, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Sorghum	115.87	135.47	128.49	123.15	86.95	91.48	147.03	105.25	105.95	127.87	121.65
Total, gross value of production	115.87	135.47	128.49	123.15	86.95	91.48	147.03	105.25	105.95	127.87	121.65
Cash expenses:											
Seed	4.06	4.30	4.05	4.24	4.18	6.58	4.00	5.67	5.93	6.18	6.13
Fertilizer	19.30	19.12	18.06	19.88	17.07	14.62	16.60	20.87	18.04	18.95	19.51
Chemicals	7.37	7.91	7.54	6.52	6.58	6.45	6.54	7.57	8.00	8.77	8.93
Custom operations 1/	5.26	5.16	5.25	5.58	5.62	5.87	5.86	5.71	5.93	6.20	6.58
Fuel, lube, and electricity	21.93	19.79	19.31	19.56	13.08	15.29	16.02	18.12	18.79	20.65	18.65
Repairs	10.72	11.19	10.48	8.64	8.42	8.61	9.29	11.46	11.17	12.69	13.53
Hired labor	3.12	3.03	2.93	3.14	3.30	3.44	3.48	10.28	10.38	10.65	11.21
Other variable cash expenses 2/	1.07	0.92	0.96	0.35	0.34	0.34	0.34	0.88	0.90	0.93	0.93
Total, variable cash expenses	72.84	71.42	68.59	67.91	58.59	61.20	62.13	80.56	79.14	85.02	85.47
General farm overhead	7.31	7.37	7.41	6.32	7.78	5.92	9.02	6.43	5.26	4.63	5.99
Taxes and insurance	5.38	5.53	5.66	5.86	6.21	6.43	6.88	11.65	8.69	7.78	9.50
Interest	17.78	17.58	16.17	11.99	12.64	9.77	11.83	6.16	6.74	6.18	6.59
Total, fixed cash expenses	30.47	30.48	29.24	24.17	26.63	22.12	27.73	24.24	20.69	18.59	22.08
Total, cash expenses	103.31	101.90	97.83	92.08	85.22	83.32	89.86	104.80	99.83	103.61	107.55
Gross value of production less cash expenses	12.56	33.57	30.66	31.07	1.73	8.16	57.17	0.45	6.12	24.26	14.10
Harvest-period price (dollars/bu.)	2.21	2.90	2.57	2.08	1.61	1.50	2.50	2.20	2.32	2.40	2.07
Yield (bu./planted acre)	52.47	46.65	49.94	59.17	54.15	60.87	58.76	47.84	45.67	53.28	58.77

Table 8B--Grain sorghum production economic costs and returns, Southern Plains, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Sorghum	115.87	135.47	128.49	123.15	86.95	91.48	147.03	105.25	105.95	127.87	121.65
Total, gross value of production	115.87	135.47	128.49	123.15	86.95	91.48	147.03	105.25	105.95	127.87	121.65
Economic (full ownership) costs:											
Variable cash expenses	72.84	71.42	68.59	67.91	58.59	61.20	62.13	80.56	79.14	85.02	85.47
General farm overhead	7.31	7.37	7.41	6.32	7.78	5.92	9.02	6.43	5.26	4.63	5.99
Taxes and insurance	5.38	5.53	5.66	5.86	6.21	6.43	6.88	11.65	8.69	7.78	9.50
Capital replacement	23.44	24.72	23.40	23.54	23.60	23.95	27.61	24.56	23.92	27.15	28.64
Operating capital	3.02	2.33	2.48	2.24	1.33	1.54	1.77	3.24	2.95	2.32	1.53
Other nonland capital	3.74	3.53	4.26	4.01	4.03	4.05	5.38	14.56	9.69	12.31	13.68
Land	26.99	31.94	30.18	32.85	24.29	25.19	38.34	22.92	22.15	25.03	22.61
Unpaid labor	12.50	12.14	11.74	12.54	13.21	13.78	13.91	14.21	14.20	14.62	15.39
Total, economic costs	155.21	158.98	153.71	155.27	139.04	142.06	164.99	178.13	166.00	178.86	182.81
Residual returns to management and risk	-39.34	-23.51	-25.22	-32.12	-52.09	-50.58	-17.96	-72.88	-60.05	-50.99	-61.16
Harvest-period price (dollars/bu.)	2.21	2.90	2.57	2.08	1.61	1.50	2.50	2.20	2.32	2.40	2.07
Yield (bu./planted acre)	52.47	46.65	49.94	59.17	54.15	60.87	58.76	47.84	45.67	53.28	58.77

1/ Cost of custom operations and technical services. 2/ Cost of purchased irrigation water.
Note: Survey base changed in 1985 and 1990.

Table 8C--Grain sorghum production cash costs and returns,
including direct Government payments and program
participation costs, Southern Plains, 1990-92

Item	1990	1991	1992
Dollars per planted acre			
Gross value of production (including direct Government payments):			
Market value of sorghum	105.95	127.87	121.65
Direct Government payments 1/	22.18	21.27	24.36
Haying/grazing on ACR and CU acreage	0.13	0.12	0.39
Total, gross value of production	128.26	149.26	146.40
Cash expenses:			
Seed	5.93	6.18	6.13
Fertilizer	18.04	18.95	19.51
Chemicals	8.41	9.23	9.40
Custom operations 2/	5.93	6.20	6.58
Fuel, lube, and electricity	21.18	23.51	20.33
Repairs	12.53	14.55	14.67
Hired labor	11.57	11.90	12.09
Other variable cash expenses 3/	1.15	1.28	1.41
Total, variable cash expenses	84.74	91.80	90.12
General farm overhead	5.83	5.06	6.43
Taxes and insurance	9.52	8.42	10.11
Interest	7.69	6.98	7.25
Total, fixed cash expenses	23.04	20.46	23.79
Total, cash expenses	107.78	112.26	113.91
Gross value of production less cash expenses	20.48	37.00	32.49
Harvest-period price (dollars/bu.)	2.32	2.40	2.07
Yield (bu./planted acre)	45.67	53.28	58.77
Percent of planted sorghum acres in program	66	62	50

Table 8D--Grain sorghum production economic costs and returns,
including direct Government payments and program
participation costs, Southern Plains, 1990-92

Item	1990	1991	1992
Dollars per planted acre			
Gross value of production (including direct Government payments):			
Market value of sorghum	105.95	127.87	121.65
Direct Government payments	22.32	21.39	24.36
Total, gross value of production	128.27	149.26	146.01
Economic (full ownership) costs:			
Variable cash expenses	84.74	91.80	90.12
General farm overhead	5.83	5.06	6.43
Taxes and insurance	9.52	8.42	10.11
Capital replacement	27.13	31.54	31.32
Operating capital	3.31	2.57	1.70
Other nonland capital	10.97	14.51	14.93
Land	24.79	27.86	24.55
Unpaid labor	15.88	16.37	16.66
Total, economic costs	182.17	198.13	195.82
Residual returns to management and risk	-53.90	-48.87	-49.81
Harvest-period price (dollars/bu.)	2.32	2.40	2.07
Yield (bu./planted acre)	45.67	53.28	58.77
Percent of planted sorghum acres in program	66	62	50

1/ Deficiency payments. Payments are not adjusted for payment limitations.

2/ Cost of custom operations, technical services, and commercial drying.

3/ Cost of purchased irrigation water, cover crop seed, and other input items.

Figure 10

Oats Production Regions

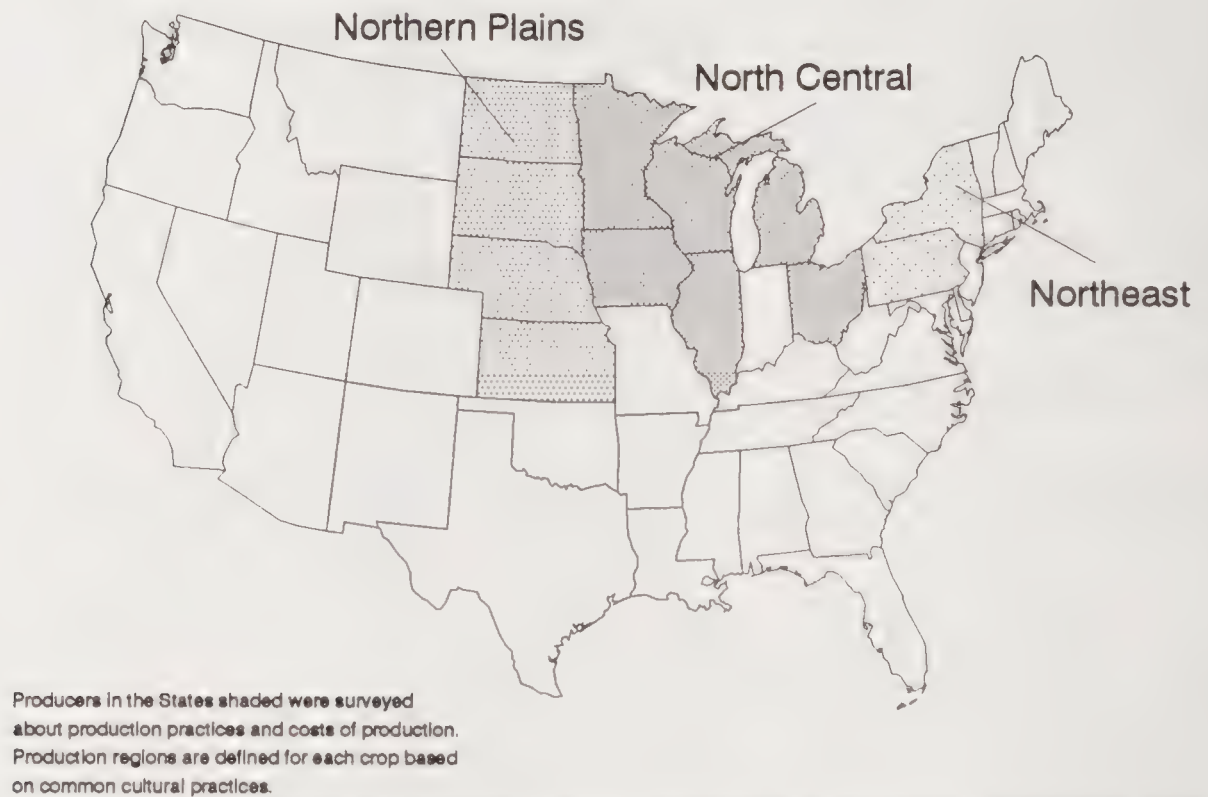
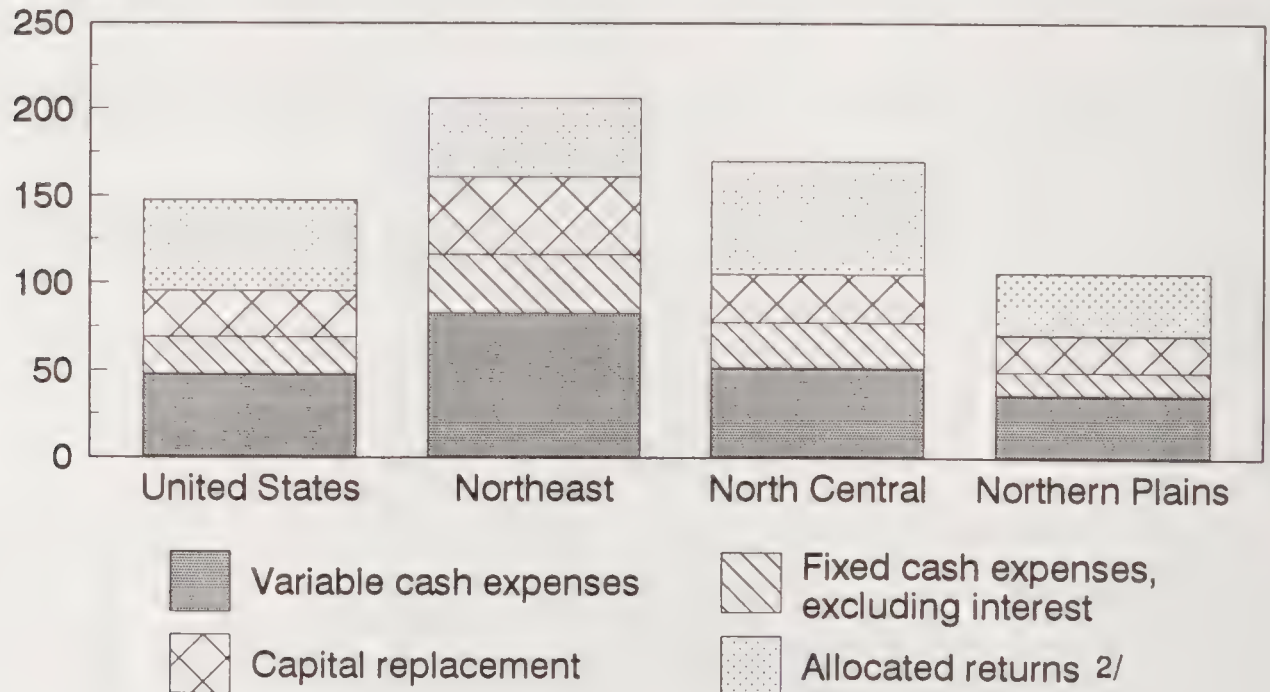


Figure 11

Oats economic costs per planted acre, 1992^{1/}

Dollars



1/ Excluding government payments. 2/ Income foregone by allocating resources owned by the operation (operating and other nonland capital, land and unpaid labor) to oats production rather than some other income-producing use.

Table 9A--U.S. oats production cash costs and returns, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Oats	78.33	70.82	83.96	55.61	48.68	70.54	94.38	81.69	66.88	60.82	83.56
Oats straw	25.44	23.78	20.78	23.82	20.26	10.73	17.74	15.63	14.02	15.56	18.37
Total, gross value of production	103.77	94.60	104.74	79.43	68.94	81.27	112.12	97.32	80.90	76.38	101.93
Cash expenses:											
Seed	7.15	5.71	8.82	8.47	5.49	6.77	8.38	9.56	8.58	7.58	8.57
Fertilizer, lime, and gypsum	12.52	11.22	12.23	11.43	10.93	12.94	14.86	13.82	12.55	12.40	12.17
Chemicals	1.25	1.34	1.38	1.23	1.35	1.01	1.06	1.10	1.10	1.05	1.14
Custom operations 1/	4.27	4.10	4.16	3.07	2.55	4.39	4.55	6.39	6.96	5.90	6.07
Fuel, lube, and electricity	11.89	10.53	8.80	8.76	6.78	5.60	5.66	6.81	7.60	8.25	6.95
Repairs	7.59	7.86	7.54	6.42	7.59	5.28	5.63	6.78	6.90	7.36	7.50
Hired labor	1.61	1.55	1.63	1.51	1.89	3.81	4.10	4.54	4.95	4.89	5.31
Other variable cash expenses 2/	0.96	0.96	0.98	0.97	0.61	0.00	0.00	0.00	0.00	0.00	0.00
Total, variable cash expenses	47.23	43.27	45.54	41.85	37.19	39.80	44.24	49.00	48.64	47.43	47.71
General farm overhead	4.67	5.18	5.32	3.90	4.67	3.32	3.33	3.13	3.64	3.11	4.26
Taxes and insurance	12.21	12.35	13.58	13.53	15.88	12.30	12.72	13.23	13.51	11.92	17.31
Interest	13.17	14.07	14.66	11.69	9.24	4.30	3.35	3.44	3.74	3.41	3.97
Total, fixed cash expenses	30.05	31.60	33.56	29.12	29.79	19.97	19.40	19.80	20.89	18.44	25.54
Total, cash expenses	77.28	74.87	79.10	70.97	66.98	59.77	63.64	68.80	69.53	65.87	73.25
Gross value of production less cash expenses	26.49	19.73	25.64	8.46	1.96	21.50	48.48	28.52	11.37	10.51	28.68
Harvest-period price (dollars/bu.)	1.42	1.45	1.65	1.23	0.86	1.31	2.66	1.52	1.09	1.22	1.26
Yield (bu./planted acre)	55.25	48.92	50.82	45.14	56.78	53.95	35.54	53.74	61.16	50.02	66.32

Table 9B--U.S. oats production economic costs and returns, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Oats	78.33	70.82	83.96	55.61	48.68	70.54	94.38	81.69	66.88	60.82	83.56
Oats straw	25.44	23.78	20.78	23.82	20.26	10.73	17.74	15.63	14.02	15.56	18.37
Total, gross value of production	103.77	94.60	104.74	79.43	68.94	81.27	112.12	97.32	80.90	76.38	101.93
Economic (full ownership) costs:											
Variable cash expenses	47.23	43.27	45.54	41.85	37.19	39.80	44.24	49.00	48.64	47.43	47.71
General farm overhead	4.67	5.18	5.32	3.90	4.67	3.32	3.33	3.13	3.64	3.11	4.26
Taxes and insurance	12.21	12.35	13.58	13.53	15.88	12.30	12.72	13.23	13.51	11.92	17.31
Capital replacement	22.05	22.98	23.42	19.17	27.45	19.65	21.12	24.93	24.30	25.09	26.18
Operating capital	1.40	1.03	1.23	0.94	0.60	0.66	0.83	1.97	1.81	1.29	0.85
Nonland capital	4.48	4.18	5.33	4.15	5.98	3.72	4.66	6.95	7.48	8.66	8.49
Land	26.82	24.25	26.35	17.46	14.63	20.99	28.24	26.16	23.85	24.88	24.37
Unpaid labor	11.79	11.37	11.93	11.03	13.87	14.23	14.92	15.67	16.36	16.80	18.40
Total, economic costs	130.66	124.61	132.70	112.04	120.27	114.72	130.06	141.04	139.59	139.18	147.57
Residual returns to management and risk	-26.89	-30.01	-27.96	-32.61	-51.33	-33.45	-17.94	-43.72	-58.69	-62.80	-45.64
Harvest-period price (dollars/bu.)	1.42	1.45	1.65	1.23	0.86	1.31	2.66	1.52	1.09	1.22	1.26
Yield (bu./planted acre)	55.25	48.92	50.82	45.14	56.78	53.95	35.54	53.74	61.16	50.02	66.32

1/ Cost of custom operations and technical services. 2/ Cost of purchased irrigation water.
Note: Survey base changed in 1988.

Table 10A--Oats production cash costs and returns, Northeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Oats	92.44	86.17	106.09	85.76	53.42	73.91	115.79	79.27	79.56	67.30	100.85
Oats straw	37.78	37.91	41.34	32.67	38.43	33.10	37.16	34.92	38.62	43.26	44.13
Total, gross value of production	130.22	124.08	147.43	118.43	91.85	107.01	152.95	114.19	118.18	110.56	144.98
Cash expenses:											
Seed	8.70	7.29	12.47	12.61	7.63	11.04	12.95	13.55	14.17	13.75	15.18
Fertilizer, lime, and gypsum	32.04	29.60	31.16	30.09	27.45	31.60	34.96	34.48	31.86	33.70	31.74
Chemicals	3.06	3.13	3.17	3.29	3.20	2.52	2.46	2.61	2.70	2.89	3.13
Custom operations 1/	5.68	5.72	5.68	5.99	5.50	4.44	4.13	4.53	5.15	4.89	5.34
Fuel, lube, and electricity	14.79	13.52	11.70	12.62	8.98	8.79	8.92	10.90	12.32	13.31	11.23
Repairs	9.79	10.08	9.81	9.74	9.69	9.67	10.34	10.44	10.37	10.59	11.11
Hired labor	2.20	2.22	2.18	2.26	2.59	3.87	4.45	4.64	4.77	4.99	5.18
Other variable cash expenses 2/	1.34	1.34	1.36	1.35	1.25	0.00	0.00	0.00	0.00	0.00	0.00
Total, variable cash expenses	77.60	72.90	77.53	77.95	66.29	71.93	78.21	81.15	81.34	84.12	82.91
General farm overhead	5.56	9.57	9.75	9.07	13.71	8.52	8.55	8.29	9.61	8.40	11.43
Taxes and insurance	16.47	17.04	17.55	18.71	21.38	16.01	15.66	16.60	17.19	15.34	21.99
Interest	15.63	12.01	14.43	15.19	11.71	4.18	4.39	4.47	4.95	4.55	5.26
Total, fixed cash expenses	37.66	38.62	41.73	42.97	46.80	28.71	28.60	29.36	31.75	28.29	38.68
Total, cash expenses	115.26	111.52	119.26	120.92	113.09	100.64	106.81	110.51	113.09	112.41	121.59
Gross value of production less cash expenses	14.96	12.56	28.17	-2.49	-21.24	6.37	46.14	3.68	5.09	-1.85	23.39
Harvest-period price (dollars/bu.)	1.53	1.60	1.96	1.12	0.83	1.27	2.28	1.42	1.24	1.55	1.48
Yield (bu./planted acre)	60.51	53.74	54.24	76.89	64.53	58.23	50.72	55.89	64.20	43.42	68.14

Table 10B--Oats production economic costs and returns, Northeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Oats	92.44	86.17	106.09	85.76	53.42	73.91	115.79	79.27	79.56	67.30	100.85
Oats straw	37.78	37.91	41.34	32.67	38.43	33.10	37.16	34.92	38.62	43.26	44.13
Total, gross value of production	130.22	124.08	147.43	118.43	91.85	107.01	152.95	114.19	118.18	110.56	144.98
Economic (full ownership) costs:											
Variable cash expenses	77.60	72.90	77.53	77.95	66.29	71.93	78.21	81.15	81.34	84.12	82.91
General farm overhead	5.56	9.57	9.75	9.07	13.71	8.52	8.55	8.29	9.61	8.40	11.43
Taxes and insurance	16.47	17.04	17.55	18.71	21.38	16.01	15.66	16.60	17.19	15.34	21.99
Capital replacement	28.78	30.07	31.31	31.61	37.59	32.69	34.33	41.20	41.17	43.01	44.63
Operating capital	2.50	1.89	2.25	1.76	1.09	1.31	1.63	3.26	3.03	2.29	1.48
Other nonland capital	6.28	5.92	7.45	7.09	8.52	5.76	7.05	10.36	11.21	13.07	12.77
Land	11.55	11.04	12.03	8.76	6.61	9.47	11.71	12.52	9.51	9.74	10.10
Unpaid labor	16.14	16.25	15.94	16.54	19.02	15.06	18.18	18.70	19.36	20.27	21.03
Total, economic costs	164.88	164.68	173.81	171.48	174.21	160.75	175.38	192.08	192.42	196.24	206.34
Residual returns to management and risk	-34.66	-40.60	-26.38	-53.05	-82.36	-53.74	-22.43	-77.89	-74.24	-85.68	-61.36
Harvest-period price (dollars/bu.)	1.53	1.60	1.96	1.12	0.83	1.27	2.28	1.42	1.24	1.55	1.48
Yield (bu./planted acre)	60.51	53.74	54.24	76.89	64.53	58.23	50.72	55.89	64.20	43.42	68.14

1/ Cost of custom operations and technical services. 2/ Cost of purchased irrigation water.
Note: Survey base changed in 1988.

Table 11A--Oats production cash costs and returns, North Central, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Oats	79.99	80.06	93.19	60.68	52.52	75.93	106.26	101.11	73.04	59.09	84.53
Oats straw	39.08	38.70	30.02	34.36	28.25	13.37	22.89	20.52	17.46	21.72	25.28
Total, gross value of production	119.07	118.76	123.21	95.04	80.77	89.30	129.15	121.63	90.50	80.81	109.81
Cash expenses:											
Seed	7.75	6.37	10.26	9.65	6.20	7.55	9.14	10.72	9.30	8.28	9.61
Fertilizer, lime, and gypsum	13.94	12.80	13.76	12.31	11.97	15.01	16.77	15.43	14.17	13.82	13.57
Chemicals	1.25	1.39	1.49	1.17	1.39	0.88	0.91	0.94	0.97	0.84	0.88
Custom operations 1/	5.40	5.56	5.23	3.83	3.06	5.67	5.60	6.17	9.21	7.41	7.43
Fuel, lube, and electricity	13.52	12.34	10.11	9.91	7.85	6.38	6.25	7.29	8.02	8.62	7.22
Repairs	7.59	8.12	7.58	6.52	7.78	5.05	5.29	6.30	6.22	6.44	6.50
Hired labor	1.93	1.88	1.94	1.76	2.22	4.98	5.00	5.02	5.83	6.09	6.41
Other variable cash expenses	1.34	1.34	1.36	1.35	0.71	0.00	0.00	0.00	0.00	0.00	0.00
Total, variable cash expenses 2/	52.72	49.80	51.73	46.50	41.18	45.52	48.96	51.87	53.72	51.50	51.62
General farm overhead	5.15	5.48	5.61	4.52	4.93	3.22	3.24	3.15	3.71	3.24	4.41
Taxes and insurance	15.47	16.48	17.90	17.25	20.17	16.18	16.02	16.58	16.97	15.14	21.71
Interest	13.93	16.05	17.14	15.30	11.71	3.66	3.66	3.78	4.17	3.83	4.43
Total, fixed cash expenses	34.55	38.01	40.65	37.07	36.81	23.06	22.92	23.51	24.85	22.21	30.55
Total, cash expenses	87.27	87.81	92.38	83.57	77.99	68.58	71.88	75.38	78.57	73.71	82.17
Gross value of production less cash expenses	31.80	30.95	30.83	11.47	2.78	20.72	57.27	46.25	11.93	7.10	27.64
Harvest-period price (dollars/bu.)	1.45	1.52	1.69	1.32	0.87	1.31	2.73	1.55	1.10	1.21	1.28
Yield (bu./planted acre)	55.14	52.73	55.10	45.89	60.68	58.05	38.86	65.18	66.51	48.71	66.04

Table 11B--Oats production economic costs and returns, North Central, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Oats	79.99	80.06	93.19	60.68	52.52	75.93	106.26	101.11	73.04	59.09	84.53
Oats straw	39.08	38.70	30.02	34.36	28.25	13.37	22.89	20.52	17.46	21.72	25.28
Total, gross value of production	119.07	118.76	123.21	95.04	80.77	89.30	129.15	121.63	90.50	80.81	109.81
Economic (full ownership) costs:											
Variable cash expenses	52.72	49.80	51.73	46.50	41.18	45.52	48.96	51.87	53.72	51.50	51.62
General farm overhead	5.15	5.48	5.61	4.52	4.93	3.22	3.24	3.15	3.71	3.24	4.41
Taxes and insurance	15.47	16.48	17.90	17.25	20.17	16.18	16.02	16.58	16.97	15.14	21.71
Capital replacement	24.30	26.26	26.05	20.70	30.76	21.24	22.50	25.85	25.47	26.61	27.61
Operating capital	1.65	1.26	1.49	1.07	0.71	0.72	0.88	2.09	2.00	1.40	0.92
Nonland capital	4.93	4.80	6.04	4.57	6.85	4.13	5.11	7.23	7.75	9.04	8.83
Land	33.38	31.83	33.50	22.09	18.17	24.42	34.40	33.55	28.53	29.34	29.57
Unpaid labor	14.19	13.79	14.14	12.89	16.28	19.15	19.78	21.45	22.48	23.71	25.42
Total, economic costs	151.78	149.70	156.46	129.59	139.05	134.58	150.89	161.77	160.63	159.98	170.09
Residual returns to management and risk	-32.71	-30.94	-33.25	-34.55	-58.28	-45.28	-21.74	-40.14	-70.13	-79.17	-60.28
Harvest-period price (dollars/bu.)	1.45	1.52	1.69	1.32	0.87	1.31	2.73	1.55	1.10	1.21	1.28
Yield (bu./planted acre)	55.14	52.73	55.10	45.89	60.68	58.05	38.86	65.18	66.51	48.71	66.04

1/ Cost of custom operations and technical services. 2/ Cost of purchased irrigation water.
Note: Survey base changed in 1988.

Table 12A--Oats production cash costs and returns, Northern Plains, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Oats	74.08	59.06	70.24	44.31	42.90	63.11	72.03	54.99	56.01	62.02	79.02
Oats straw	6.74	6.27	7.24	8.03	6.71	3.24	5.59	5.18	4.59	3.21	4.36
Total, gross value of production	80.82	65.33	77.48	52.34	49.61	66.35	77.62	60.17	60.60	65.23	83.38
Cash expenses:											
Seed	6.18	4.80	6.65	6.27	4.19	5.00	6.17	7.18	6.52	5.70	6.00
Fertilizer	7.74	7.08	7.88	7.53	6.54	6.86	7.22	7.74	6.58	7.19	6.93
Chemicals	0.98	1.05	1.01	1.01	0.95	0.88	0.95	1.03	0.97	1.02	1.16
Custom operations 1/	2.66	2.34	2.71	1.59	1.34	2.75	3.14	2.57	4.23	4.10	4.28
Fuel, lube, and electricity	9.45	8.22	6.89	6.62	5.00	4.02	4.98	5.38	6.13	6.98	5.84
Repairs	7.24	7.29	7.20	5.81	6.95	4.76	4.98	6.77	7.15	8.05	8.31
Hired labor	1.11	1.11	1.20	1.05	1.34	3.23	3.48	3.85	3.79	3.27	3.78
Other variable cash expenses 2/	0.51	0.51	0.52	0.51	0.36	0.00	0.00	0.00	0.00	0.00	0.00
Total, variable cash expenses	35.87	32.40	34.06	30.39	26.67	27.50	29.96	34.52	35.37	36.31	36.30
General farm overhead	3.94	4.26	4.38	2.30	2.65	2.19	2.19	2.14	2.40	2.10	2.85
Taxes and insurance	7.55	7.39	8.03	7.66	9.40	6.81	7.26	7.91	8.09	7.22	10.35
Interest	11.85	12.28	11.81	6.22	5.63	2.56	2.65	2.76	2.92	2.68	3.10
Total, fixed cash expenses	23.34	23.93	24.22	16.18	17.68	11.56	12.10	12.81	13.41	12.00	16.30
Total, cash expenses	59.21	56.33	58.28	46.57	44.35	39.06	42.06	47.33	48.78	48.31	52.60
Gross value of production less cash expenses	21.61	9.00	19.20	5.77	5.26	27.29	35.56	12.84	11.82	16.92	30.78
Harvest-period price (dollars/bu.)	1.36	1.33	1.55	1.12	0.85	1.32	2.66	1.47	1.05	1.17	1.19
Yield (bu./planted acre)	54.57	44.29	45.39	39.56	50.37	47.97	27.07	37.35	53.25	52.75	66.40

Table 12B--Oats production economic costs and returns, Northern Plains, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Oats	74.08	59.06	70.24	44.31	42.90	63.11	72.03	54.99	56.01	62.02	79.02
Oats straw	6.74	6.27	7.24	8.03	6.71	3.24	5.59	5.18	4.59	3.21	4.36
Total, gross value of production	80.82	65.33	77.48	52.34	49.61	66.35	77.62	60.17	60.60	65.23	83.38
Economic (full ownership) costs:											
Variable cash expenses	35.87	32.40	34.06	30.39	26.67	27.50	29.96	34.52	35.37	36.31	36.30
General farm overhead	3.94	4.26	4.38	2.30	2.65	2.19	2.19	2.14	2.40	2.10	2.85
Taxes and insurance	7.55	7.39	8.03	7.66	9.40	6.81	7.26	7.91	8.09	7.22	10.35
Capital replacement	18.24	18.59	19.28	15.26	21.33	15.21	15.92	20.59	19.44	20.31	21.08
Operating capital	0.92	0.68	0.79	0.63	0.38	0.46	0.56	1.39	1.32	0.99	0.65
Other nonland capital	3.65	3.29	4.22	3.15	4.40	2.81	3.44	5.91	6.40	7.46	7.29
Land	21.13	18.13	20.01	12.36	11.63	18.80	23.36	18.37	20.23	21.53	19.45
Unpaid labor	8.17	8.18	8.80	7.68	9.85	6.06	7.10	7.02	7.41	7.33	8.09
Total, economic costs	99.47	92.92	99.57	79.43	86.31	79.84	89.79	97.85	100.66	103.25	106.06
Residual returns to management and risk	-18.65	-27.59	-22.09	-27.09	-36.70	-13.49	-12.17	-37.68	-40.06	-38.02	-22.68
Harvest-period price (dollars/bu.)	1.36	1.33	1.55	1.12	0.85	1.32	2.66	1.47	1.05	1.17	1.19
Yield (bu./planted acre)	54.57	44.29	45.39	39.56	50.37	47.97	27.07	37.35	53.25	52.75	66.40

1/ Cost of custom operations and technical services. 2/ Cost of purchased irrigation water.
Note: Survey base changed in 1988.

Figure 12

Barley Production Regions

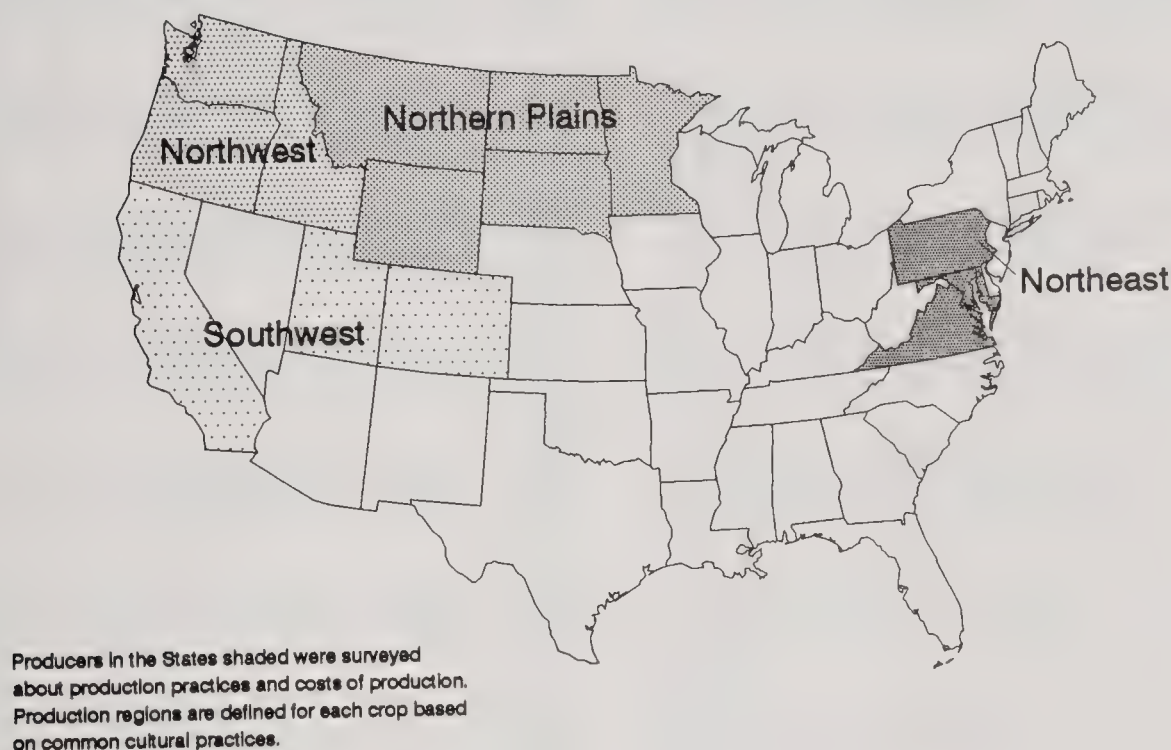
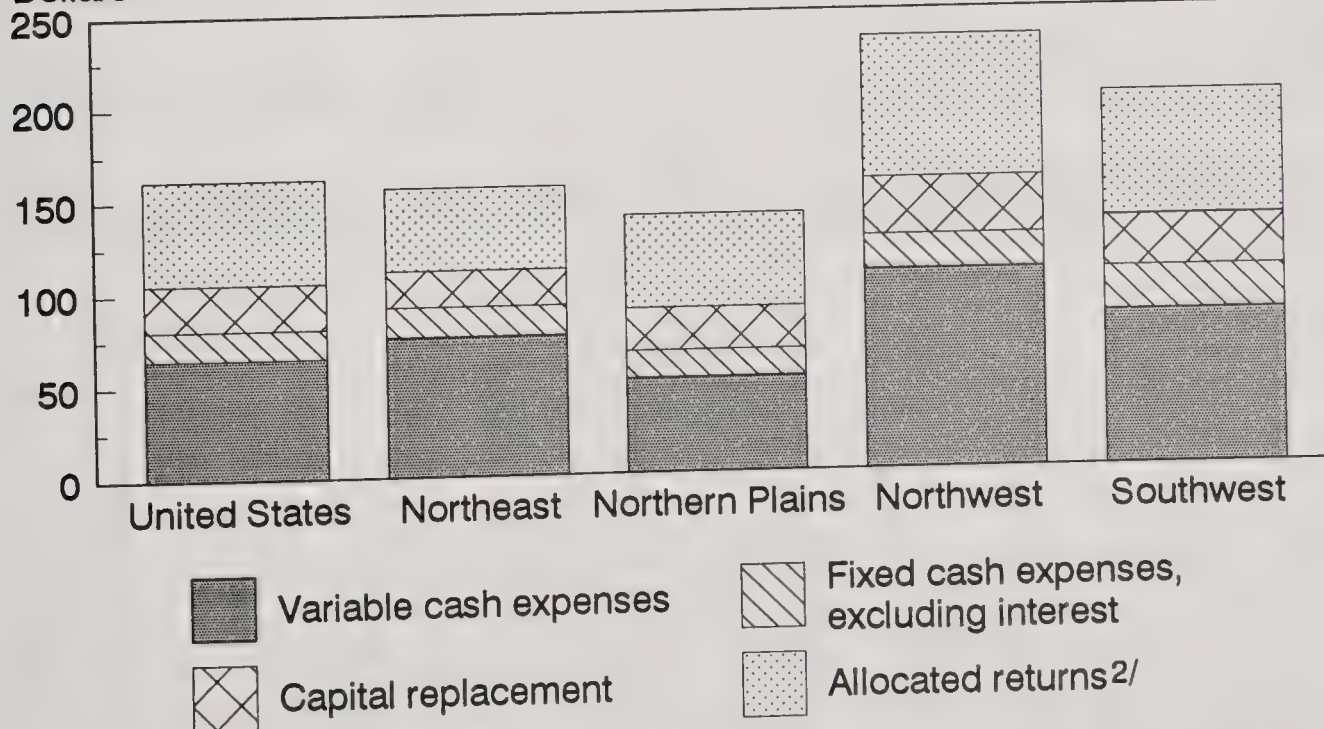


Figure 13

Barley production economic costs per planted acre, 1992 ^{1/}

Dollars



^{1/} Excluding government payments. ^{2/} Income foregone by allocating resources owned by the operation (operating and other nonland capital, land and unpaid labor) to barley production rather than some other income-producing use.

Table 13A--U.S. barley production cash costs and returns, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Barley	114.07	116.99	115.52	83.46	68.92	80.00	79.87	115.21	106.99	106.93	126.34
Barley straw 1/	3.58	3.32	3.75	3.58	2.31	2.28	3.47	3.55	3.27	2.82	4.38
Total, gross value of production	117.65	120.31	119.27	87.04	71.23	82.28	83.34	118.76	110.26	109.75	130.72
Cash expenses:											
Seed	6.54	5.53	6.48	6.08	7.35	5.92	6.30	8.52	7.50	6.48	7.14
Fertilizer, lime, and gypsum	18.14	16.24	16.31	15.66	13.95	13.12	14.88	15.74	14.30	15.12	15.61
Chemicals	5.71	5.91	6.04	6.03	6.29	6.17	6.31	6.50	6.81	7.40	7.45
Custom operations 2/	4.33	3.90	3.60	3.00	2.66	2.66	2.14	2.80	3.03	3.16	4.01
Fuel, lube, and electricity	13.12	11.74	10.18	10.88	7.02	7.18	7.05	8.14	8.54	9.08	11.69
Repairs	9.44	9.66	9.56	9.00	7.56	7.06	6.89	8.18	8.17	8.55	12.12
Hired labor	5.09	5.20	4.94	4.91	6.13	5.85	6.14	6.71	7.01	7.29	5.01
Other variable cash expenses 3/	2.30	2.31	2.35	2.33	2.55	2.34	2.33	2.41	2.43	2.46	1.71
Total, variable cash expenses	64.67	60.49	59.46	57.89	53.51	50.30	52.04	59.00	57.79	59.54	64.74
General farm overhead	8.36	9.33	9.35	5.49	6.28	5.98	6.45	6.21	7.16	6.46	5.44
Taxes and insurance	8.28	8.53	8.91	9.00	7.96	7.38	7.01	8.10	7.71	7.91	10.49
Interest	19.07	24.36	24.91	13.56	13.73	10.32	9.51	9.78	10.76	10.18	9.82
Total, fixed cash expenses	35.71	42.22	43.17	28.05	27.97	23.68	22.97	24.09	25.63	24.55	25.75
Total, cash expenses	100.38	102.71	102.63	85.94	81.48	73.98	75.01	83.09	83.42	84.09	90.49
Gross value of production less cash expenses	17.27	17.60	16.64	1.10	-10.25	8.30	8.33	35.67	26.84	25.66	40.23
Harvest-period price (dollars/bu.)	2.13	2.36	2.29	1.86	1.47	1.69	2.90	2.63	2.12	2.07	2.16
Yield (bu./planted acre)	53.44	49.65	50.46	44.96	46.83	47.42	27.54	43.88	50.48	51.58	58.49

Table 13B--U.S. barley production economic costs and returns, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Barley	114.07	116.99	115.52	83.46	68.92	80.00	79.87	115.21	106.99	106.93	126.34
Barley straw 1/	3.58	3.32	3.75	3.58	2.31	2.28	3.47	3.55	3.27	2.82	4.38
Total, gross value of production	117.65	120.31	119.27	87.04	71.23	82.28	83.34	118.76	110.26	109.75	130.72
Economic (full ownership) costs:											
Variable cash expenses	64.67	60.49	59.46	57.89	53.51	50.30	52.04	59.00	57.79	59.54	64.74
General farm overhead	8.36	9.33	9.35	5.49	6.28	5.98	6.45	6.21	7.16	6.46	5.44
Taxes and insurance	8.28	8.53	8.91	9.00	7.96	7.38	7.01	8.10	7.71	7.91	10.49
Capital replacement	23.71	24.56	24.94	24.06	24.41	23.61	22.81	27.43	27.58	28.85	24.66
Operating capital	2.03	1.53	1.65	1.30	0.82	0.84	1.03	1.33	1.19	0.89	1.16
Other nonland capital	4.18	3.90	4.89	4.47	4.48	4.26	4.68	6.89	7.63	8.91	12.69
Land	31.25	31.83	30.77	21.15	26.70	28.38	30.18	36.32	34.59	35.61	35.72
Unpaid labor	5.73	5.87	5.58	5.54	11.07	10.49	11.10	12.15	12.59	12.78	6.69
Total, economic costs	148.21	146.04	145.55	128.90	135.23	131.24	135.30	157.43	156.24	160.95	161.59
Residual returns to management and risk	-30.56	-25.73	-26.28	-41.86	-64.00	-48.96	-51.96	-38.67	-45.98	-51.20	-30.87
Harvest-period price (dollars/bu.)	2.13	2.36	2.29	1.86	1.47	1.69	2.90	2.63	2.12	2.07	2.16
Yield (bu./planted acre)	53.44	49.65	50.46	44.96	46.83	47.42	27.54	43.88	50.48	51.58	58.49

1/ Value of barley straw and grazing after 1991. 2/ Cost of custom operations and technical services. 3/ Cost of purchased irrigation water and bailing.
Note: Survey base changed in 1986 and 1992.

Table 14A--Barley production cash costs and returns, Northeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Barley	94.65	112.93	124.24	93.75	75.21	80.51	156.09	108.65	136.93	95.76	147.20
Barley straw 1/	67.62	67.62	70.07	55.32	44.80	53.60	63.71	55.93	65.25	69.91	49.77
Total, gross value of production	162.27	180.55	194.31	149.07	120.01	134.11	219.80	164.58	202.18	165.67	196.97
Cash expenses:											
Seed	9.15	8.60	9.92	9.59	17.30	15.79	15.35	17.41	16.98	17.29	11.29
Fertilizer, lime, and gypsum	26.40	24.09	25.34	24.28	25.78	25.43	29.43	32.18	29.60	32.05	32.33
Chemicals	0.18	0.19	0.19	2.66	2.66	2.66	2.70	2.83	2.98	3.24	2.84
Custom operations 2/	6.65	6.74	6.84	6.98	7.27	6.93	7.96	7.87	9.26	9.58	4.23
Fuel, lube, and electricity	13.75	12.69	11.03	11.90	6.42	6.65	7.00	7.83	9.03	10.04	7.95
Repairs	8.62	9.00	8.38	8.45	7.39	7.34	8.02	8.32	8.95	9.36	10.4
Hired labor	9.15	8.83	8.42	8.92	10.29	9.72	11.62	12.09	12.28	13.28	4.83
Other variable cash expenses 3/	1.92	1.93	1.96	1.95	0.00	0.00	0.00	0.00	0.00	0.00	1.77
Total, variable cash expenses	75.82	72.07	72.08	72.26	77.11	74.52	82.08	88.53	89.08	94.84	75.64
General farm overhead	5.36	10.31	10.51	11.42	5.65	5.52	5.85	5.67	6.56	5.95	5.01
Taxes and insurance	19.28	20.69	20.89	22.19	20.50	20.71	22.16	23.58	23.84	24.82	11.33
Interest	15.07	12.94	15.56	19.13	5.81	4.45	4.05	4.17	4.58	4.37	3.51
Total, fixed cash expenses	39.71	43.94	46.96	52.74	31.96	30.68	32.06	33.42	34.98	35.14	19.85
Total, cash expenses	115.53	116.01	119.04	125.00	109.07	105.20	114.14	121.95	124.06	129.98	95.49
Gross value of production less cash expenses	46.74	64.54	75.27	24.07	10.94	28.91	105.66	42.63	78.12	35.69	101.48
Harvest-period price (dollars/bu.)	1.96	2.20	2.56	1.62	1.35	1.53	2.58	1.95	2.15	1.71	1.93
Yield (bu./planted acre)	48.29	51.33	48.53	57.87	55.71	52.62	60.50	55.72	63.69	56.00	76.27

Table 14B--Barley production economic costs and returns, Northeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments)											
Barley	94.65	112.93	124.24	93.75	75.21	80.51	156.09	108.65	136.93	95.76	147.20
Barley straw 1/	67.62	67.62	70.07	55.32	44.80	53.60	63.71	55.93	65.25	69.91	49.77
Total, gross value of production	162.27	180.55	194.31	149.07	120.01	134.11	219.80	164.58	202.18	165.67	196.97
Economic (full ownership) costs:											
Variable cash expenses	75.82	72.07	72.08	72.26	77.11	74.52	82.08	88.53	89.08	94.84	75.64
General farm overhead	5.36	10.31	10.51	11.42	5.65	5.52	5.85	5.67	6.56	5.95	5.01
Taxes and insurance	19.28	20.69	20.89	22.19	20.50	20.71	22.16	23.58	23.84	24.82	11.33
Capital replacement	24.31	25.63	28.94	29.41	24.42	24.50	26.10	27.90	29.42	31.30	19.43
Operating capital	1.65	1.24	1.41	1.10	0.94	2.38	3.01	3.79	3.45	2.68	1.35
Other nonland capital	5.34	5.08	6.75	6.51	4.73	4.64	5.82	7.40	8.49	9.91	10.13
Land	31.45	30.78	34.27	29.17	26.50	29.63	33.39	34.75	31.88	30.82	19.66
Unpaid labor	10.31	9.95	9.51	10.06	13.63	12.92	14.58	16.07	16.33	17.66	13.71
Total, economic costs	173.52	175.75	184.36	182.12	173.48	174.82	192.99	207.69	209.05	217.98	156.26
Residual returns to management and risk	-11.25	4.80	9.95	-33.05	-53.47	-40.71	26.81	-43.11	-6.87	-52.31	40.71
Harvest-period price (dollars/bu.)	1.96	2.20	2.56	1.62	1.35	1.53	2.58	1.95	2.15	1.71	1.93
Yield (bu./planted acre)	48.29	51.33	48.53	57.87	55.71	52.62	60.50	55.72	63.69	56.00	76.27
1/ Value of barley straw and grazing after 1991. 2/ Cost of custom operations and technical services. 3/ Cost of purchased irrigation water and baling.											

Note: Survey base changed in 1986 and 1992. Northeast includes Virginia and Maryland in addition to Pennsylvania in 1992.

Table 15A--Barley production cash costs and returns, Northern Plains, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Barley	91.55	92.81	93.95	65.11	51.16	63.42	51.24	96.28	90.20	88.87	111.15
Barley straw 1/	2.29	2.14	2.93	3.27	1.29	1.33	2.35	2.00	1.55	1.20	2.00
Total, gross value of production	93.84	94.95	96.88	68.38	52.45	64.75	53.59	98.28	91.75	90.07	113.15
Cash expenses:											
Seed	4.97	4.14	5.54	5.01	6.08	4.62	5.15	7.47	6.37	5.24	5.43
Fertilizer, lime, and gypsum	15.39	13.76	14.51	14.20	12.90	12.26	14.29	14.62	12.69	13.73	12.61
Chemicals	5.20	5.36	5.52	5.51	5.38	5.45	5.56	5.70	6.04	6.56	6.22
Custom operations 2/	1.74	1.69	4.30	1.53	1.95	2.01	1.26	1.95	2.18	2.28	2.96
Fuel, lube, and electricity	10.01	8.95	7.46	8.27	3.94	4.84	4.43	5.25	6.76	6.39	7.92
Repairs	7.66	8.00	7.93	7.46	6.29	5.88	5.31	6.83	6.76	7.07	11.53
Hired labor	4.11	4.28	4.18	4.15	4.36	4.23	4.35	4.77	5.02	5.34	3.94
Other variable cash expenses 3/	0.52	0.52	0.53	0.52	1.17	1.24	1.09	1.11	1.13	1.14	0.88
Total, variable cash expenses	49.60	46.70	47.44	46.66	42.07	40.53	41.44	47.70	46.16	47.75	51.49
General farm overhead	5.87	7.19	7.39	3.54	5.23	5.14	5.51	5.26	6.10	5.57	5.05
Taxes and insurance	7.00	7.31	7.80	7.89	6.99	6.54	5.96	7.13	6.71	6.85	9.45
Interest	16.23	20.07	20.89	9.77	12.21	9.41	8.64	8.82	9.74	9.34	10.06
Total, fixed cash expenses	29.10	34.57	36.08	21.20	24.43	21.09	20.11	21.21	22.55	21.76	24.56
Total, cash expenses	78.70	81.27	83.54	67.86	66.50	61.62	61.55	68.91	68.71	69.51	76.05
Total, cash expenses	15.14	13.68	13.34	0.52	-14.05	3.13	-7.96	29.37	23.04	20.56	37.10
Gross value of production less cash expenses											
Harvest-period price (dollars/bu.)	1.82	2.13	2.11	1.59	1.18	1.47	3.04	2.54	1.93	1.89	1.97
Yield (bu./planted acre)	50.18	43.55	44.54	41.08	43.28	43.05	16.87	37.88	46.66	46.91	56.42

Table 15B--Barley production economic costs and returns, Northern Plains, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Barley	91.55	92.81	93.95	65.11	51.16	63.42	51.24	96.28	90.20	88.87	111.15
Barley straw 1/	2.29	2.14	2.93	3.27	1.29	1.33	2.35	2.00	1.55	1.20	2.00
Total, gross value of production	93.84	94.95	96.88	68.38	52.45	64.75	53.59	98.28	91.75	90.07	113.15
Economic (full ownership) costs:											
Variable cash expenses	49.60	46.70	47.44	46.66	42.07	40.53	41.44	47.70	46.16	47.75	51.49
General farm overhead	5.87	7.19	7.39	3.54	5.23	5.14	5.51	5.26	6.10	5.57	5.05
Taxes and insurance	7.00	7.31	7.80	7.89	6.99	6.54	5.96	7.13	6.71	6.85	9.45
Capital replacement	22.28	23.05	23.06	22.37	22.80	22.02	20.19	25.69	25.52	26.69	23.05
Operating capital	1.64	1.28	1.42	1.13	0.56	0.59	0.72	0.95	0.82	0.62	0.92
Other nonland capital	4.00	3.70	4.60	4.22	4.21	3.99	4.12	6.45	7.09	8.28	12.80
Land	28.89	28.56	27.75	18.75	23.32	24.32	23.25	30.40	29.76	29.98	31.58
Unpaid labor	4.64	4.83	4.71	4.69	10.62	10.24	10.95	12.02	12.42	12.61	5.24
Total, economic costs	123.91	122.62	124.18	109.24	115.80	113.37	112.14	135.60	134.58	138.35	139.58
Residual returns to management and risk	-30.07	-27.67	-27.30	-40.86	-63.35	-48.62	-58.55	-37.32	-42.83	-48.28	-26.43
Harvest-period price (dollars/bu.)	1.82	2.13	2.11	1.59	1.18	1.47	3.04	2.54	1.93	1.89	1.97
Yield (bu./planted acre)	50.18	43.55	44.54	41.08	43.28	43.05	16.87	37.88	46.66	46.91	56.42
1/ Value of barley straw and grazing after 1991. 2/ Cost of custom operations and technical services. 3/ Cost of purchased irrigation water and baling.											
Note: Survey base changed in 1986 and 1992.											

Table 16A--Barley production cash costs and returns, Northwest, 1982-92											
Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Barley	149.40	163.42	152.99	115.73	116.33	138.57	161.33	173.62	167.61	180.40	177.30
Barley straw 1/	4.64	4.38	4.46	3.43	3.54	3.53	4.84	5.48	6.34	4.94	3.82
Total, gross value of production	154.04	167.80	157.45	119.16	119.87	142.10	166.17	179.10	173.95	185.34	181.12
Cash expenses:											
Seed	7.87	7.21	7.78	7.59	10.41	9.43	9.20	11.07	10.52	10.40	11.86
Fertilizer, lime, and gypsum	20.69	19.57	19.37	18.44	17.63	16.78	17.38	19.82	20.70	20.16	25.04
Chemicals	6.82	7.33	7.56	7.77	8.81	8.74	8.84	9.23	9.60	10.43	13.67
Custom operations 2/	3.97	3.91	3.96	3.33	3.87	4.26	4.13	4.83	5.29	5.44	6.06
Fuel, lube, and electricity	15.23	15.01	13.71	13.29	15.27	15.80	16.13	18.17	18.34	18.98	24.67
Repairs	12.87	13.49	13.29	12.58	11.65	11.84	12.65	13.33	13.92	14.56	14.79
Hired labor	5.98	6.61	6.05	6.11	10.88	11.10	11.47	12.65	13.83	13.71	7.90
Other variable cash expenses 3/	3.57	3.58	3.64	3.62	5.98	6.01	6.35	6.62	7.06	7.14	3.90
Total, variable cash expenses	77.00	76.71	75.37	72.73	84.50	83.96	86.15	95.72	99.26	100.82	107.89
General farm overhead	11.26	12.31	12.58	9.06	9.35	9.14	9.83	9.63	11.26	9.40	6.22
Taxes and insurance	9.32	9.99	10.63	11.08	9.45	9.22	9.28	9.89	9.89	10.36	12.45
Interest	22.08	30.60	32.10	20.50	18.07	13.88	12.81	13.37	14.89	13.81	11.73
Total, fixed cash expenses	42.66	52.90	55.31	40.64	36.87	32.24	31.92	32.89	36.04	33.57	30.40
Total, cash expenses	119.66	129.61	130.68	113.37	121.37	116.20	118.07	128.61	135.30	134.39	138.29
Gross value of production less cash expenses											
	34.38	38.19	26.77	5.79	-1.50	25.90	48.10	50.49	38.65	50.95	42.83
Harvest-period price (dollars/bu.)											
	2.58	2.61	2.39	2.22	2.05	2.16	2.70	2.73	2.55	2.60	2.76
Yield (bu./planted acre)											
	57.94	62.58	64.08	52.05	56.65	64.21	59.66	63.68	65.83	69.36	64.24

Table 16B--Barley production economic costs and returns, Northwest, 1982-92											
Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Barley	149.40	163.42	152.99	115.73	116.33	138.57	161.33	173.62	167.61	180.40	177.30
Barley straw 1/	4.64	4.38	4.46	3.43	3.54	3.53	4.84	5.48	6.34	4.94	3.82
Total, gross value of production	154.04	167.80	157.45	119.16	119.87	142.10	166.17	179.10	173.95	185.34	181.12
Economic (full ownership) costs:											
Variable cash expenses	77.00	76.71	75.37	72.73	84.50	83.96	86.15	95.72	99.26	100.82	107.89
General farm overhead	11.26	12.31	12.58	9.06	9.35	9.14	9.83	9.63	11.26	9.40	6.22
Taxes and insurance	9.32	9.99	10.63	11.08	9.45	9.22	9.28	9.89	9.89	10.36	12.45
Capital replacement	26.88	28.37	29.40	27.96	31.17	31.69	33.70	36.12	37.88	39.63	30.95
Operating capital	2.09	1.64	1.80	1.41	1.46	1.60	1.89	2.43	2.33	1.73	1.93
Other nonland capital	4.60	4.39	5.58	5.05	5.63	5.64	6.97	9.03	10.34	12.08	12.90
Land	37.56	41.03	38.65	26.90	35.62	41.44	49.55	53.18	51.46	56.46	51.99
Unpaid labor	6.75	7.46	6.83	6.90	11.16	10.95	11.13	12.13	12.87	12.95	10.06
Total, economic costs	175.46	181.90	180.83	161.08	188.34	193.64	208.50	228.13	235.29	243.43	234.39
Residual returns to management and risk	-21.42	-14.10	-23.38	-41.92	-68.47	-51.54	-42.33	-49.03	-61.34	-58.09	-53.27
Harvest-period price (dollars/bu.)	2.58	2.61	2.39	2.22	2.05	2.16	2.70	2.73	2.55	2.60	2.76
Yield (bu./planted acre)	57.94	62.58	64.08	52.05	56.65	64.21	59.66	63.68	65.83	69.36	64.24
1/ Value of barley straw and grazing after 1991. 2/ Cost of custom operations and technical services. 3/ Cost of purchased irrigation water and baling.											

Table 17A--Barley production cash costs and returns,
Southwest, 1992

Item	1992
	Dollars per planted acre
Gross value of production (excluding direct Government payments):	
Barley	136.83
Barley straw 1/	6.32
Total, gross value of production	143.15
Cash expenses:	
Seed	10.37
Fertilizer, lime, and gypsum	12.66
Chemicals	6.12
Custom operations 2/	9.76
Fuel, lube, and electricity	18.80
Repairs	12.04
Hired labor	8.79
Other variable cash expenses 3/	4.80
Total, variable cash expenses	83.34
General farm overhead	7.70
Taxes and insurance	15.93
Interest	5.46
Total, fixed cash expenses	29.09
Total, cash expenses	112.43
Gross value of production less cash expenses	30.72
Harvest-period price (dollars/bu.)	2.49
Yield (bu./planted acre)	54.95

Table 17B--Barley production economic costs and returns,
Southwest, 1992

Item	1982
	Dollars per planted acre
Gross value of production (excluding direct Government payments):	
Barley	136.83
Barley straw 1/	6.32
Total, gross value of production	143.15
Economic (full ownership) costs:	
Variable cash expenses	83.34
General farm overhead	7.70
Taxes and insurance	15.93
Capital replacement	27.72
Operating capital	1.49
Other nonland capital	12.43
Land	44.68
Unpaid labor	9.19
Total, economic costs	202.48
Residual returns to management and risk	-59.33
Harvest-period price (dollars/bu.)	2.49
Yield (bu./planted acre)	54.95

1/ Includes value of barley grazing in Southwest after 1991.

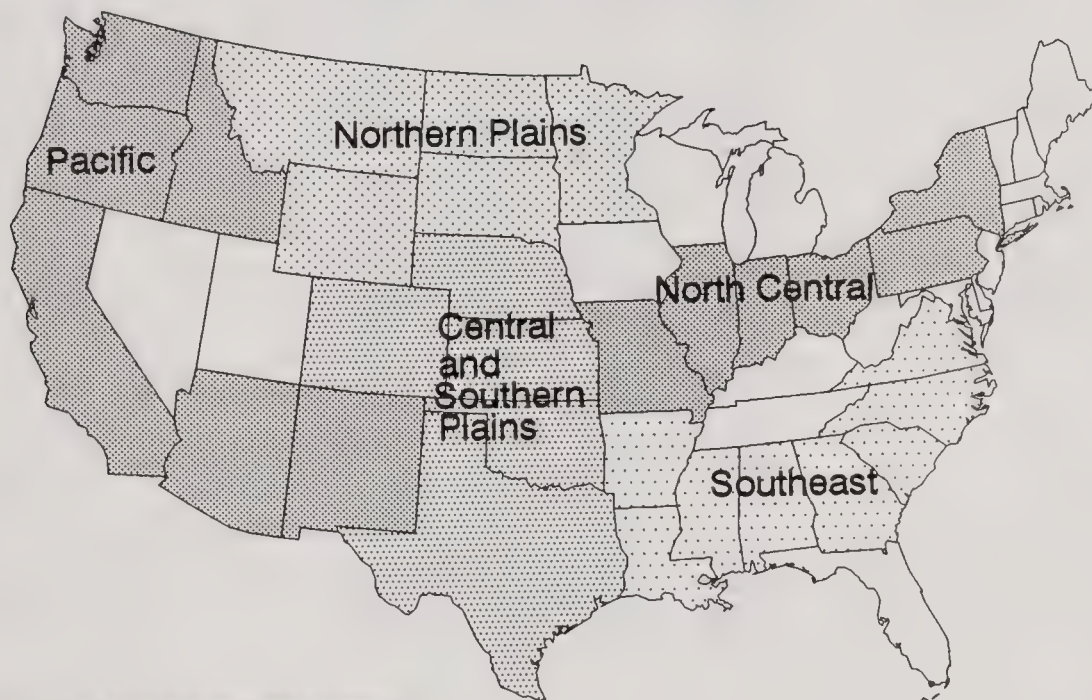
2/ Cost of custom operations and technical services.

3/ Cost of purchased irrigation water and baling.

Note: Survey base is 1992.

Figure 14

Wheat Production Regions

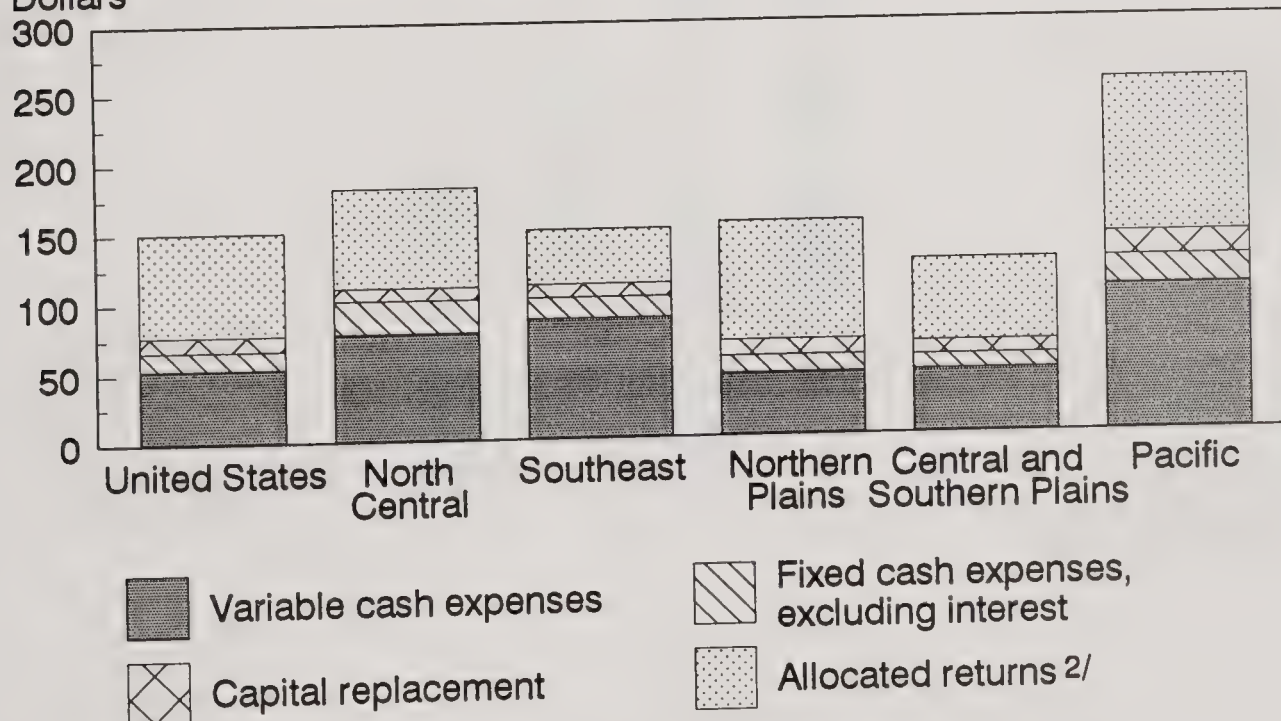


Producers in the States shaded were surveyed about production practices and costs of production. Production regions are defined for each crop based on common cultural practices.

Figure 15

Wheat economic costs per planted acre, 1992 ^{1/}

Dollars



^{1/} Excluding government payments. ^{2/} Income foregone by allocating resources owned by the operation (operating and other nonland capital, land, and unpaid labor) to wheat production rather than some other income-producing use.

Table 18A--U.S. Wheat production cash costs and returns, 1989-92

Item	1989	1990	1991	1992
Dollars per planted acre				
Gross value of production (excluding direct Government payments):				
Wheat	99.90	94.27	72.68	112.12
Wheat straw	3.45	1.52	1.21	1.37
Total, gross value of production	103.35	95.79	73.89	113.49
Cash expenses:				
Seed	7.68	7.69	5.87	6.67
Fertilizer, lime, and gypsum	16.70	14.59	15.30	14.46
Chemicals	5.02	5.45	5.73	6.15
Custom operations 1/	4.11	4.56	4.25	4.24
Fuel, lube, and electricity	7.96	8.72	8.96	8.81
Repairs	6.39	6.51	6.70	7.22
Hired labor	4.95	4.92	5.34	5.52
Other variable cash expenses 2/	0.20	0.20	0.18	0.20
Total, variable cash expenses	53.01	52.64	52.33	53.27
General farm overhead	5.01	6.47	5.15	4.97
Taxes and insurance	8.72	10.28	8.88	8.07
Interest	8.77	9.56	9.12	7.77
Total, fixed cash expenses	22.50	26.31	23.15	20.81
Total, cash expenses	75.51	78.95	75.48	74.08
Gross value of production less cash expenses	27.84	16.84	-1.59	39.41
Harvest-period price (dollars/bu.)	3.81	2.78	2.57	3.32
Yield (bu./planted acre)	26.22	33.91	28.28	33.77

Table 18B--U.S. Wheat production economic costs and returns, 1989-92

Item	1989	1990	1991	1992
Dollars per planted acre				
Gross value of production (excluding direct Government payments):				
Wheat	99.90	94.27	72.68	112.12
Wheat straw	3.45	1.52	1.21	1.37
Total, gross value of production	103.35	95.79	73.89	113.49
Economic (full ownership) costs:				
Variable cash expenses	53.01	52.64	52.33	53.27
General farm overhead	5.01	6.47	5.15	4.97
Taxes and insurance	8.72	10.28	8.88	8.07
Capital replacement	9.66	9.89	10.60	10.93
Operating capital	2.12	1.97	1.42	0.95
Other nonland capital	9.67	10.67	12.18	13.30
Land	47.57	46.33	33.92	49.18
Unpaid labor	8.67	11.24	9.48	10.00
Total, economic costs	144.43	149.49	133.96	150.67
Residual returns to management and risk	-41.08	-53.70	-60.07	-37.18
Harvest-period price (dollars/bu.)	3.81	2.78	2.57	3.32
Yield (bu./planted acre)	26.22	33.91	28.28	33.77

1/ Cost of custom operations and technical services.

2/ Cost of purchased irrigation water.

Note: Survey base changed in 1989.

Table 19A--Wheat production cash costs and returns, North Central, 1989-92

Item	1989	1990	1991	1992
Dollars per planted acre				
Gross value of production (excluding direct Government payments):				
Wheat	198.67	132.39	82.15	138.98
Wheat straw	13.51	12.15	10.77	14.11
Total, gross value of production	212.18	144.54	92.92	153.09
Cash expenses:				
Seed	13.47	13.43	11.94	12.86
Fertilizer, lime, and gypsum	44.99	36.76	42.44	40.71
Chemicals	2.36	2.33	2.73	2.96
Custom operations 1/	5.40	5.59	5.72	5.91
Fuel, lube, and electricity	6.02	5.05	6.81	6.68
Repairs	4.18	3.18	4.56	4.76
Hired labor	3.46	3.11	3.72	3.96
Total, variable cash expenses	79.88	69.45	77.92	77.84
General farm overhead	8.12	7.38	8.42	8.22
Taxes and insurance	13.71	15.20	15.66	15.17
Interest	13.24	14.64	13.84	11.62
Total, fixed cash expenses	35.07	37.22	37.92	35.01
Total, cash expenses	114.95	106.67	115.84	112.85
Gross value of production less cash expenses	97.23	37.86	-22.92	40.24
Harvest-period price (dollars/bu.)	3.75	2.90	2.45	3.27
Yield (bu./planted acre)	52.98	45.65	33.53	42.50

Table 19B--Wheat production economic costs and returns, North Central, 1989-92

Item	1989	1990	1991	1992
Dollars per planted acre				
Gross value of production (excluding direct Government payments):				
Wheat	198.67	132.39	82.15	138.98
Wheat straw	13.51	12.15	10.77	14.11
Total, gross value of production	212.18	144.54	92.92	153.09
Economic (full ownership) costs:				
Variable cash expenses	79.88	69.45	77.92	77.84
General farm overhead	8.12	7.38	8.42	8.22
Taxes and insurance	13.71	15.20	15.66	15.17
Capital replacement	8.23	5.63	8.97	9.31
Operating capital	3.21	2.59	2.12	1.39
Other nonland capital	11.76	10.08	14.81	16.16
Land	59.52	33.75	13.87	35.19
Unpaid labor	15.97	15.20	18.06	18.75
Total, economic costs	200.40	159.28	159.83	182.03
Residual returns to management and risk	11.78	-14.75	-66.91	-28.94
Harvest-period price (dollars/bu.)	3.75	2.90	2.45	3.27
Yield (bu./planted acre)	52.98	45.65	33.53	42.50

1/ Cost of custom operations and technical services.

Note: Survey base changed in 1989.

Table 20A--Wheat production cash costs and returns, Southeast, 1989-92

Item	1989	1990	1991	1992
Dollars per planted acre				
Gross value of production (excluding direct Government payments)				
Wheat	137.69	96.56	59.98	134.91
Wheat straw	1.53	1.53	1.43	1.76
Total, gross value of production	139.22	98.09	61.41	136.67
Cash expenses:				
Seed	13.27	13.56	12.73	13.41
Fertilizer, lime, and gypsum	36.67	33.34	32.89	34.45
Chemicals	5.72	6.42	6.73	7.55
Custom operations 1/	7.73	8.92	7.84	7.81
Fuel, lube, and electricity	6.38	6.90	7.13	7.05
Repairs	5.81	5.43	6.36	6.60
Hired labor	8.04	8.21	9.18	9.84
Total, variable cash expenses	83.62	82.78	82.86	86.71
General farm overhead	6.43	6.54	6.84	6.72
Taxes and insurance	8.51	14.72	8.33	8.25
Interest	9.66	10.24	9.66	8.17
Total, fixed cash expenses	24.60	31.50	24.83	23.14
Total, cash expenses	108.22	114.28	107.69	109.85
Gross value of production less cash expenses	31.00	-16.19	-46.28	26.82
Harvest-period price (dollars/bu.)	3.66	3.12	2.49	3.24
Yield (bu./planted acre)	37.62	30.95	24.09	41.64

Table 20B--Wheat production economic costs and returns, Southeast, 1989-92

Item	1989	1990	1991	1992
Dollars per planted acre				
Gross value of production (excluding direct Government payments)				
Wheat	137.69	96.56	59.98	134.91
Wheat straw	1.53	1.53	1.43	1.76
Total, gross value of production	139.22	98.09	61.41	136.67
Economic (full ownership) costs:				
Variable cash expenses	83.62	82.78	82.86	86.71
General farm overhead	6.43	6.54	6.84	6.72
Taxes and insurance	8.51	14.72	8.33	8.25
Capital replacement	8.83	8.17	9.68	10.06
Operating capital	3.36	3.09	2.25	1.55
Other nonland capital	8.37	9.06	10.61	11.52
Land	16.85	13.63	10.88	16.98
Unpaid labor	7.33	7.70	8.42	9.07
Total, economic costs	143.30	145.69	139.87	150.86
Residual returns to management and risk	-4.08	-47.60	-78.46	-14.19
Harvest-period price (dollars/bu.)	3.66	3.12	2.49	3.24
Yield (bu./planted acre)	37.62	30.95	24.09	41.64

1/ Cost of custom operations and technical services.
Note: Survey base changed in 1989.

Table 21A--Wheat production cash costs and returns, Northern Plains, 1989-92

Item	1989	1990	1991	1992
Dollars per planted acre				
Gross value of production (excluding direct Government payments):				
Wheat	93.95	83.46	74.67	117.81
Wheat straw	0.83	0.84	0.53	0.61
Total, gross value of production	94.78	84.30	75.20	118.42
Cash expenses:				
Seed	7.47	7.24	4.91	6.40
Fertilizer, lime and gypsum	10.84	9.16	9.95	9.74
Chemicals	6.40	6.88	7.31	7.76
Custom operations 1/	2.54	2.78	2.63	2.68
Fuel, lube, and electricity	7.00	8.15	7.90	7.66
Repairs	6.35	6.83	6.91	7.08
Hired labor	3.58	3.51	3.77	3.96
Other variable cash expenses 2/	0.01	0.01	0.01	0.01
Total, variable cash expenses	44.19	44.56	43.39	45.29
General farm overhead	4.97	6.57	5.10	4.93
Taxes and insurance	8.65	9.98	8.15	7.73
Interest	9.97	10.91	10.42	8.84
Total, fixed cash expenses	23.59	27.46	23.67	21.50
Total, cash expenses	67.78	72.02	67.06	66.79
Gross value of production less cash expenses	27.00	12.28	8.14	51.63
Harvest-period price (dollars/bu.)	3.67	2.55	2.47	3.30
Yield (bu./planted acre)	25.60	32.73	30.23	35.70

Table 21B--Wheat production economic costs and returns, Northern Plains, 1989-92

Item	1989	1990	1991	1992
Dollars per planted acre				
Gross value of production (excluding direct Government payments):				
Wheat	93.95	83.46	74.67	117.81
Wheat straw	0.83	0.84	0.53	0.61
Total, gross value of production	94.78	84.30	75.20	118.42
Economic (full ownership) costs:				
Variable cash expenses	44.19	44.56	43.39	45.29
General farm overhead	4.97	6.57	5.10	4.93
Taxes and insurance	8.65	9.98	8.15	7.73
Capital replacement	9.79	11.24	10.66	10.97
Operating capital	1.78	1.66	1.18	0.81
Other nonland capital	10.27	11.75	12.95	14.05
Land	54.25	49.00	46.90	59.66
Unpaid labor	9.63	9.76	10.52	11.33
Total, economic costs	143.53	144.52	138.85	154.77
Residual returns to management and risk	-48.75	-60.22	-63.65	-36.35
Harvest-period price (dollars/bu.)	3.67	2.55	2.47	3.30
Yield (bu./planted acre)	25.60	32.73	30.23	35.70

1/ Cost of custom operations and technical services.

2/ Cost of purchased irrigation water.

Note: Survey base changed in 1989.

Table 22A--Wheat production cash costs and returns, Central and Southern Plains,
1989-92

Item	1989	1990	1991	1992
Dollars per planted acre				
Gross value of production (excluding direct Government payments):				
Wheat	93.03	82.48	60.14	84.04
Wheat straw	0.49	0.37	0.39	0.35
Total, gross value of production	93.52	82.85	60.53	84.39
Cash expenses:				
Seed	5.63	5.81	4.43	4.87
Fertilizer, lime, and gypsum	13.05	11.24	11.66	11.70
Chemicals	2.80	3.06	3.19	3.35
Custom operations 1/	4.52	5.03	4.76	4.82
Fuel, lube, and electricity	7.73	8.36	8.73	8.55
Repairs	6.61	6.49	7.21	7.48
Hired labor	4.50	4.49	4.85	5.09
Other variable cash expenses 2/	0.05	0.04	0.05	0.05
Total, variable cash expenses	44.89	44.52	44.88	45.91
General farm overhead	3.45	5.25	3.60	3.54
Taxes and insurance	7.86	8.97	8.21	7.09
Interest	5.96	6.56	6.32	5.45
Total, fixed cash expenses	17.27	20.78	18.13	16.08
Total, cash expenses	62.16	65.30	63.01	61.99
Gross value of production less cash expenses	31.36	17.55	-2.48	22.40
Harvest-period price (dollars/bu.)	3.86	2.88	2.51	3.22
Yield (bu./planted acre)	24.10	28.64	23.96	26.10

Table 22B--Wheat production economic costs and returns, Central and
Southern Plains, 1989-92

Item	1989	1990	1991	1992
Dollars per planted acre				
Gross value of production (excluding direct Government payments):				
Wheat	93.03	82.48	60.14	84.04
Wheat straw	0.49	0.37	0.39	0.35
Total, gross value of production	93.52	82.85	60.53	84.39
Economic (full ownership) costs:				
Variable cash expenses	44.89	44.52	44.88	45.91
General farm overhead	3.45	5.25	3.60	3.54
Taxes and insurance	7.86	8.97	8.21	7.09
Capital replacement	8.88	8.99	9.70	10.08
Operating capital	1.80	1.66	1.22	0.82
Other nonland capital	8.92	9.80	11.24	12.30
Land	36.44	41.13	26.57	38.65
Unpaid labor	6.44	11.91	6.95	7.13
Total, economic costs	118.68	132.23	112.37	125.52
Residual returns to management and risk	-25.16	-49.38	-51.84	-41.13
Harvest-period price (dollars/bu.)	3.86	2.88	2.51	3.22
Yield (bu./planted acre)	24.10	28.64	23.96	26.10

1/ Cost of custom operations and technical services.

2/ Cost of purchased irrigation water.

Note: Survey base changed in 1989.

Table 23A--Wheat production cash costs and returns, Pacific, 1989-92

Item	1989	1990	1991	1992
Dollars per planted acre				
Gross value of production (excluding direct Government payments):				
Wheat	219.97	186.82	119.52	189.12
Wheat straw	1.11	1.20	1.14	1.30
Total, gross value of production	221.08	188.02	120.66	190.42
Cash expenses:				
Seed	11.84	11.84	9.69	10.79
Fertilizer, lime, and gypsum	28.16	28.33	28.16	26.10
Chemicals	13.33	15.89	14.75	16.09
Custom operations 1/	5.77	6.95	5.27	6.17
Fuel, lube, and electricity	16.83	19.62	17.14	19.12
Repairs	7.66	9.29	8.38	8.70
Hired labor	13.62	14.97	13.91	15.68
Other variable cash expenses 2/	2.30	2.53	1.83	2.31
Total, variable cash expenses	99.51	109.42	99.13	104.96
General farm overhead	10.22	12.79	10.52	10.35
Taxes and insurance	9.81	11.77	10.65	10.07
Interest	14.26	15.65	15.13	12.66
Total, fixed cash expenses	34.29	40.21	36.30	33.08
Total, cash expenses	133.80	149.63	135.43	138.04
Gross value of production less cash expenses	87.28	38.39	-14.77	52.38
Harvest-period price (dollars/bu.)	4.12	2.92	3.06	3.67
Yield (bu./planted acre)	53.39	63.98	39.06	51.53

Table 23B--Wheat production economic costs and returns, Pacific, 1989-92

Item	1989	1990	1991	1992
Dollars per planted acre				
Gross value of production (excluding direct Government payments):				
Wheat	219.97	186.82	119.52	189.12
Wheat straw	1.11	1.20	1.14	1.30
Total, gross value of production	221.08	188.02	120.66	190.42
Economic (full ownership) costs:				
Variable cash expenses	99.51	109.42	99.13	104.96
General farm overhead	10.22	12.79	10.52	10.35
Taxes and insurance	9.81	11.77	10.65	10.07
Capital replacement	15.43	14.36	16.89	17.53
Operating capital	4.00	4.09	2.70	1.87
Other nonland capital	10.11	12.26	12.77	13.86
Land	90.48	84.05	46.39	82.47
Unpaid labor	11.54	13.25	12.88	13.51
Total, economic costs	251.10	261.99	211.93	254.62
Residual returns to management and risk	-30.02	-73.97	-91.27	-64.20
Harvest-period price (dollars/bu.)	4.12	2.92	3.06	3.67
Yield (bu./planted acre)	53.39	63.98	39.06	51.53

1/ Cost of custom operations and technical services.

2/ Cost of purchased irrigation water.

Note: Survey base changed in 1989.

Figure 16

Soybean Production Regions

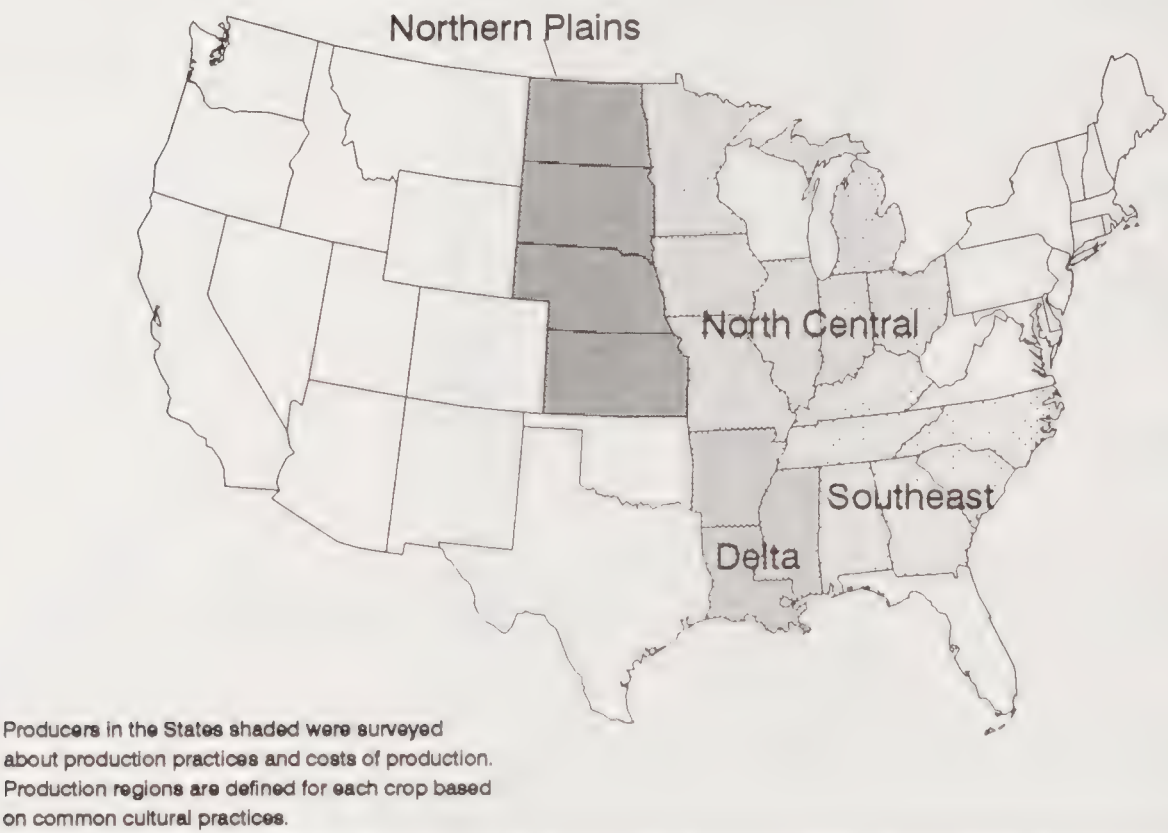
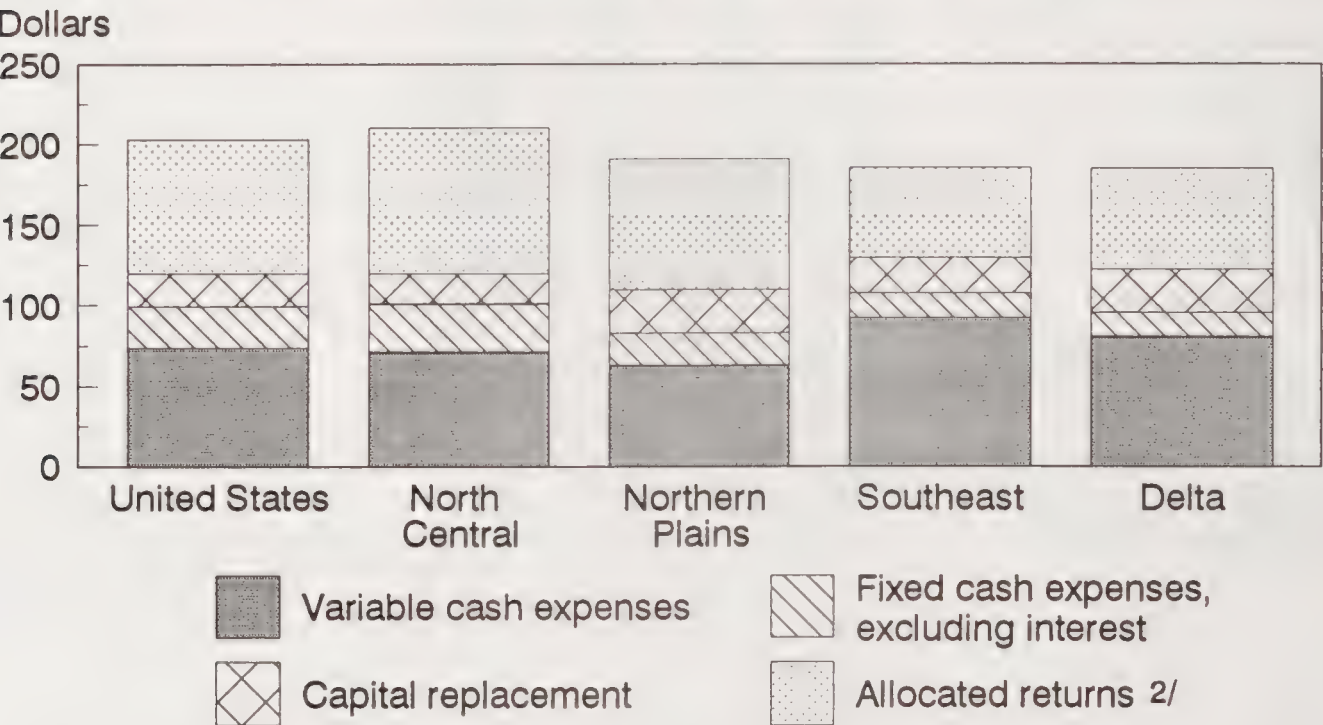


Figure 17

Soybean economic costs per planted acre, 1992 ^{1/}



^{1/} Excluding government payments. ^{2/} Income foregone by allocating resources owned by the operation (operating and other nonpaid capital, land, and unpaid labor) to soybean production rather than some other income-producing use.

Table 24A--U.S. soybean production cash costs and returns, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Soybeans	160.67	204.47	166.62	166.07	150.54	171.52	201.50	175.63	193.64	183.81	193.36
Total, gross value of production	160.67	204.47	166.62	166.07	150.54	171.52	201.50	175.63	193.64	183.81	193.36
Cash expenses:											
Seed	8.52	7.98	10.97	12.92	10.82	11.16	12.01	15.04	12.47	12.89	12.46
Fertilizer, lime, and gypsum	9.46	8.74	8.89	6.18	5.35	5.29	6.61	10.66	9.57	9.34	9.39
Chemicals	18.33	19.18	19.56	12.41	12.37	12.04	12.24	19.48	20.48	22.51	23.53
Custom operations 1/	4.01	4.02	4.03	4.06	4.06	4.05	4.05	3.50	3.56	3.66	3.66
Fuel, lube, and electricity	11.81	10.35	8.42	11.62	7.39	8.97	9.12	8.27	9.06	9.49	8.46
Repairs	6.46	6.63	6.45	7.04	6.56	6.63	7.30	8.58	8.63	8.92	9.57
Hired labor	2.39	2.37	2.37	2.45	2.53	2.62	2.80	5.68	5.88	5.91	6.21
Other variable cash expenses 2/	0.40	0.34	0.36	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.04
Total, variable cash expenses	61.38	59.61	61.05	56.68	49.08	50.67	54.13	71.25	69.69	72.76	73.32
General farm overhead	8.79	10.43	10.81	6.85	7.87	10.81	12.44	8.95	8.23	9.25	8.78
Taxes and insurance	10.57	11.18	11.94	12.85	13.46	13.94	14.39	16.25	15.63	17.14	17.10
Interest	27.15	32.57	33.82	20.32	18.16	19.02	19.20	12.08	13.35	15.54	12.76
Total, fixed cash expenses	46.51	54.18	56.57	40.02	39.49	43.77	46.03	37.28	37.21	41.93	38.64
Total, cash expenses	107.89	113.79	117.62	96.70	88.57	94.53	100.16	108.53	106.90	114.69	111.96
Gross value of production less cash expenses	52.75	90.67	49.10	69.26	62.07	77.13	101.33	67.10	86.73	69.12	81.40
Harvest-period price (dollars/bu.)	5.13	7.95	6.05	4.86	4.57	5.07	7.53	5.53	5.85	5.49	5.25
Yield (bu./planted acre)	31.32	25.72	27.54	34.17	32.94	33.83	26.76	31.76	33.10	33.48	36.83

Table 24B--U.S. soybean production economic costs and returns, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Soybeans	160.67	204.47	166.62	166.07	150.54	171.52	201.50	175.63	193.64	183.81	193.36
Total, gross value of production	160.67	204.47	166.62	166.07	150.54	171.52	201.50	175.63	193.64	183.81	193.36
Economic (full ownership) costs:											
Variable cash expenses	61.38	59.61	61.05	56.68	49.08	50.76	54.13	71.24	69.69	72.76	73.32
General farm overhead	8.79	10.43	10.81	6.85	7.87	10.81	12.44	8.95	8.23	9.25	8.78
Taxes and insurance	10.57	11.18	11.94	12.85	13.46	13.94	14.39	16.25	15.63	17.14	17.10
Capital replacement	23.16	24.50	24.17	29.60	31.48	31.84	34.13	17.94	18.59	19.30	20.71
Operating capital	2.88	2.21	2.54	1.72	1.08	1.24	1.51	2.86	2.60	1.98	1.31
Other nonland capital	3.70	3.50	4.32	4.99	5.07	5.05	6.36	12.27	8.98	10.48	11.79
Land	52.54	63.46	52.71	48.16	43.63	45.56	52.22	46.69	49.86	47.32	50.72
Unpaid labor	9.01	8.92	8.94	9.22	9.53	9.86	10.54	16.06	16.96	18.40	19.29
Total, economic costs	172.02	183.81	176.48	170.07	161.20	169.06	185.72	192.26	190.54	196.63	203.02
Residual returns to management and risk	-11.38	20.65	-9.76	-4.11	-10.56	2.60	15.77	-16.63	3.09	-12.82	-9.66
Harvest-period price (dollars/bu.)	5.13	7.95	6.05	4.86	4.57	5.07	7.53	5.53	5.85	5.49	5.25
Yield (bu./planted acre)	31.32	25.72	27.54	34.17	32.94	33.83	26.76	31.76	33.10	33.48	36.83

1/ Cost of custom operations and technical services. 2/ Cost of purchased irrigation water.
Note: Survey base changed in 1985 and 1989.

Table 25A--Soybean production cash costs and returns, North Central, 1982-92											
Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Soybeans	178.97	239.78	183.19	183.59	170.58	190.40	207.05	199.55	220.65	199.10	206.19
Total, gross value of production	178.97	239.78	183.19	183.59	170.58	190.40	207.05	199.55	220.65	199.10	206.19
Cash expenses:											
Seed	9.25	8.54	11.60	13.82	11.27	11.58	12.60	16.64	13.52	13.89	13.30
Fertilizer, lime, and gypsum	6.08	6.85	7.57	4.48	4.04	4.17	5.11	9.02	8.39	8.64	8.43
Chemicals	17.67	18.57	19.05	12.90	12.90	12.60	12.78	20.52	21.51	23.57	24.59
Custom operations 1/	3.09	3.16	3.16	4.11	4.16	4.17	4.15	3.93	3.97	4.04	4.03
Fuel, lube, and electricity	11.41	10.04	8.15	11.35	7.42	8.85	9.03	7.15	7.82	8.20	7.27
Repairs	5.97	6.11	5.96	6.53	6.30	6.31	7.00	8.00	8.00	8.19	8.73
Hired labor	2.31	2.26	2.28	2.38	2.50	2.59	2.80	3.82	4.06	4.48	4.67
Other variable cash expenses 2/	0.31	0.27	0.28	0.00	0.00	0.00	0.00	0.02	0.03	0.02	0.02
Total, variable cash expenses	56.09	55.80	58.05	55.57	48.59	50.26	53.47	69.10	67.30	71.03	71.04
General farm overhead	10.21	12.57	12.89	7.21	8.59	12.17	13.20	9.92	9.22	10.23	9.72
Taxes and insurance	14.32	14.81	15.60	15.19	15.64	15.99	16.59	19.08	19.02	20.32	20.26
Interest	29.84	41.22	42.23	23.09	20.96	21.78	21.77	14.24	15.60	17.84	14.65
Total, fixed cash expenses	54.37	68.60	70.72	45.49	45.19	49.94	51.56	43.24	43.84	48.39	44.63
Total, cash expenses	110.46	124.40	128.77	101.06	93.78	100.20	105.03	112.34	111.14	119.42	115.67
Gross value of production less cash expenses	68.59	115.53	54.51	82.44	76.65	90.24	102.09	87.21	109.51	79.68	90.52
Harvest-period price (dollars/bu.)	5.05	7.99	6.04	4.83	4.52	5.00	7.54	5.52	5.87	5.50	5.24
Yield (bu./planted acre)	35.44	30.01	30.33	38.01	37.74	38.08	27.46	36.15	37.59	36.20	39.35

Table 25B--Soybean production economic costs and returns, North Central, 1982-92											
Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Soybeans	178.97	239.78	183.19	183.59	170.58	190.40	207.05	199.55	220.65	199.10	206.19
Total, gross value of production	178.97	239.78	183.19	183.59	170.58	190.40	207.05	199.55	220.65	199.10	206.19
Economic (full ownership) costs:											
Variable cash expenses	56.09	55.80	58.05	55.57	48.59	50.26	53.47	69.10	67.30	71.03	71.04
General farm overhead	10.21	12.57	12.89	7.21	8.59	12.17	13.20	9.92	9.22	10.23	9.72
Taxes and insurance	14.32	14.81	15.60	15.19	15.64	15.99	16.59	19.08	19.02	20.32	20.26
Capital replacement	25.49	26.81	26.33	31.01	33.45	33.40	35.93	16.61	17.20	17.58	18.73
Operating capital	2.47	1.97	2.29	1.63	1.03	1.19	1.44	2.78	2.51	1.93	1.27
Other nonland capital	4.09	3.85	4.72	5.18	5.32	5.22	6.61	11.91	8.91	10.23	11.44
Land	68.07	83.77	67.04	57.62	51.81	53.20	58.69	54.78	58.78	53.45	57.34
Unpaid labor	8.69	8.48	8.57	8.96	9.41	9.73	10.53	16.92	17.85	19.56	20.47
Total, economic costs	189.43	208.06	195.49	182.37	173.84	181.16	196.46	201.10	200.79	204.33	210.27
Residual returns to management and risk	-10.38	31.87	-12.21	1.13	-3.41	9.28	10.66	-1.55	19.86	-5.23	-4.08
Harvest-period price (dollars/bu.)	5.05	7.99	6.04	4.83	4.52	5.00	7.54	5.52	5.87	5.50	5.24
Yield (bu./planted acre)	35.44	30.01	30.33	38.01	37.74	38.08	27.46	36.15	37.59	36.20	39.35
1/ Cost of custom operations and technical services. 2/ Cost of purchased irrigation water.											
Note: Survey base changed in 1985 and 1989.											

1/ Cost of custom operations and technical services. 2/ Cost of purchased irrigation water.
 Note: Survey base changed in 1985 and 1989.

Table 26A--Soybean production cash costs and returns, Northern Plains, 1989-92

Item	1989	1990	1991	1992
Dollars per planted acre				
Gross value of production:				
Soybeans	145.94	166.20	153.08	167.33
Total, gross value of production	145.94	166.20	153.08	167.33
Cash expenses:				
Seed	13.85	11.54	12.24	12.04
Fertilizer, lime, and gypsum	3.04	2.61	2.82	2.77
Chemicals	15.65	16.46	17.96	19.09
Custom operations 1/	2.39	2.47	2.41	2.40
Fuel, lube, and electricity	10.42	11.35	11.61	10.60
Repairs	9.30	9.26	9.54	10.27
Hired labor	5.02	5.05	4.79	5.31
Other variable cash expenses 2/	0.20	0.19	0.19	0.19
Total, variable cash expenses	59.87	58.93	61.56	62.67
General farm overhead	8.22	7.11	7.77	7.37
Taxes and insurance	14.20	12.04	12.68	12.82
Interest	11.69	12.65	14.36	11.77
Total, fixed cash expenses	34.11	31.80	34.81	31.96
Total, cash expenses	93.98	90.73	96.37	94.63
Gross value of production less cash expenses	51.96	75.47	56.71	72.70
Harvest-period price (dollars/bu.)	5.28	5.68	5.33	5.04
Yield (bu./planted acre)	27.64	29.26	28.72	33.20

Table 26B--Soybean production economic costs and returns, Northern Plains, 1989-92

Item	1989	1990	1991	1992
Dollars per planted acre				
Gross value of production:				
Soybeans	145.94	166.20	153.08	167.33
Total, gross value of production	145.94	166.20	153.08	167.33
Economic (full ownership) costs:				
Variable cash expenses	59.87	58.93	61.56	62.67
General farm overhead	8.22	7.11	7.77	7.37
Taxes and insurance	14.20	12.04	12.68	12.82
Capital replacement	23.49	24.30	24.90	26.81
Operating capital	2.41	2.20	1.67	1.12
Other nonland capital	14.82	10.19	11.68	13.21
Land	44.67	47.88	43.43	46.34
Unpaid labor	19.24	19.48	18.91	20.78
Total, economic costs	186.92	182.13	182.60	191.12
Residual returns to management and risk	-40.98	-15.93	-29.52	-23.79
Harvest-period price (dollars/bu.)	5.28	5.68	5.33	5.04
Yield (bu./planted acre)	27.64	29.26	28.72	33.20

1/ Cost of custom operations and technical services.

2/ Cost of purchased irrigation water.

Table 27A--Soybean production cash costs and returns, Southeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Soybeans	136.25	137.65	141.37	126.70	107.55	116.47	185.92	140.45	127.12	149.52	153.63
Total, gross value of production	136.25	137.65	141.37	126.70	107.55	116.47	185.92	140.45	127.12	149.52	153.63
Cash expenses:											
Seed	7.54	7.25	9.96	10.11	9.90	9.71	9.68	11.70	9.69	10.16	10.02
Fertilizer, lime, and gypsum	21.80	20.25	18.97	14.26	12.66	12.42	15.19	25.61	23.12	22.49	23.92
Chemicals	21.00	22.11	22.86	14.40	14.04	13.53	13.94	18.37	19.50	21.44	22.22
Custom operations 1/	5.92	5.89	6.06	5.79	5.65	5.75	5.78	2.22	2.27	2.52	2.58
Fuel, lube, and electricity	12.60	10.96	8.98	11.87	7.21	8.85	8.85	9.57	10.24	11.28	9.77
Repairs	7.38	7.47	7.34	9.15	7.98	8.47	9.12	9.40	9.48	10.69	11.40
Hired labor	2.57	2.62	2.66	2.81	2.79	3.01	3.22	11.07	11.24	11.19	12.01
Other variable cash expenses 2/	0.24	0.21	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total, variable cash expenses	79.05	76.76	77.05	68.39	60.23	61.47	65.78	87.94	85.54	89.77	91.92
General farm overhead	6.14	6.05	6.23	4.54	4.58	6.53	10.51	6.30	5.69	6.38	6.04
Taxes and insurance	4.89	5.10	5.40	6.74	6.92	7.25	7.41	10.33	8.69	9.45	9.50
Interest	23.26	20.45	19.38	13.75	11.04	10.46	14.60	5.47	6.26	7.15	5.84
Total, fixed cash expenses	34.29	31.60	31.01	25.03	22.54	24.24	32.52	22.10	20.64	22.98	21.38
Total, cash expenses	113.34	108.36	108.06	93.42	82.77	85.98	98.30	110.04	106.18	112.75	113.30
Gross value of production less cash expenses	22.86	29.36	33.40	33.29	24.78	30.60	87.76	30.41	20.94	36.77	40.33
Harvest-period price (dollars/bu.)	5.32	7.79	6.07	4.93	4.86	5.36	7.50	5.67	5.81	5.55	5.34
Yield (bu./planted acre)	25.61	17.67	23.29	25.70	22.13	21.73	24.79	24.77	21.88	26.94	28.77

Table 27B--Soybean production economic costs and returns, Southeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Soybeans	136.25	137.65	141.37	126.70	107.55	116.47	185.92	140.45	127.12	149.52	153.63
Total, gross value of production	136.25	137.65	141.37	126.70	107.55	116.47	185.92	140.45	127.12	149.52	153.63
Economic (full ownership) costs:											
Variable cash expenses	79.05	76.76	77.05	68.39	60.23	61.74	65.78	87.94	85.54	89.77	91.92
General farm overhead	6.14	6.05	6.23	4.54	4.58	6.53	10.51	6.30	5.69	6.38	6.04
Taxes and insurance	4.89	5.10	5.40	6.74	6.92	7.25	7.41	10.33	8.69	9.45	9.50
Capital replacement	19.55	20.43	20.20	24.36	23.81	25.05	26.53	17.92	18.12	20.46	21.79
Operating capital	3.99	3.11	3.48	2.18	1.43	1.60	1.95	3.54	3.19	2.44	1.64
Other nonland capital	3.02	2.80	3.48	4.20	3.96	4.11	5.09	11.72	8.17	10.26	11.44
Land	28.24	27.03	27.79	25.04	23.00	22.05	30.02	23.81	24.20	26.19	27.28
Unpaid labor	9.66	9.88	9.04	10.56	10.51	11.33	12.10	13.60	14.33	15.63	15.64
Total, economic costs	154.54	151.16	153.19	146.01	134.44	139.66	159.39	175.16	167.93	180.58	185.25
Residual returns to management and risk	-18.34	-13.44	-11.73	-19.30	-26.89	-23.08	26.67	-34.71	-40.81	-31.06	-31.62
Harvest-period price (dollars/bu.)	5.32	7.79	6.07	4.93	4.86	5.36	7.50	5.67	5.81	5.55	5.34
Yield (bu./planted acre)	25.61	17.67	23.29	25.70	22.13	21.73	24.79	24.77	21.88	26.94	28.77

1/ Cost of custom operations and technical services. 2/ Cost of purchased irrigation water.

Note: Survey base changed in 1985 and 1989.

Table 28A--Soybean production cash costs and returns, Delta, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Soybeans	132.49	158.77	154.26	121.86	88.33	115.95	184.81	120.27	139.36	150.98	181.69
Total, gross value of production	132.49	158.77	154.26	121.86	88.33	115.95	184.81	120.27	139.36	150.98	181.69
Cash expenses:											
Seed	8.08	7.67	10.78	11.37	9.31	10.10	10.75	11.11	10.48	9.43	9.51
Fertilizer, lime, and gypsum	9.71	5.33	6.25	6.84	6.06	6.04	7.99	6.08	5.45	5.36	5.68
Chemicals	19.75	20.82	21.03	8.54	8.53	8.30	8.49	18.47	19.34	21.51	22.91
Custom operations 1/	5.20	5.33	5.49	2.33	2.35	2.42	2.40	3.85	3.90	3.85	3.96
Fuel, lube, and electricity	12.85	11.01	8.82	12.58	7.40	9.63	9.73	11.27	13.06	14.63	13.46
Repairs	6.84	7.20	6.93	7.47	6.72	7.00	7.49	10.34	10.84	11.52	13.00
Hired labor	2.54	2.55	2.51	2.45	2.49	2.53	2.53	10.12	11.16	11.80	12.02
Other variable cash expenses 2/	1.00	0.86	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total, variable cash expenses	65.98	60.77	62.71	51.58	42.86	46.02	49.38	71.24	74.23	78.10	80.54
General farm overhead	6.93	7.10	7.23	7.18	6.94	6.93	10.09	7.52	6.51	7.25	6.86
Taxes and insurance	4.33	4.69	5.10	7.67	8.54	8.30	8.54	9.18	6.99	7.83	7.75
Interest	22.39	14.48	18.36	13.64	10.14	11.16	9.96	8.64	9.35	10.03	8.34
Total, fixed cash expenses	33.65	26.27	30.69	28.49	25.02	26.39	28.59	25.34	22.85	25.11	22.95
Total, cash expenses	99.63	87.04	93.40	80.07	67.88	72.41	77.97	96.58	97.08	103.21	103.49
Gross value of production less cash expenses	32.91	71.64	60.89	41.86	20.38	43.50	106.88	23.69	42.28	47.77	78.20
Harvest-period price (dollars/bu.)	5.43	7.86	6.20	4.98	4.88	5.54	7.47	5.83	5.92	5.64	5.57
Yield (bu./planted acre)	24.40	20.20	24.88	24.47	18.10	20.93	24.74	20.63	23.54	26.77	32.62

Table 28B--Soybean production economic costs and returns, Delta, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Soybeans	132.49	158.77	154.26	121.86	88.33	115.95	184.81	120.27	139.36	150.98	181.69
Total, gross value of production	132.49	158.77	154.26	121.86	88.33	115.95	184.81	120.27	139.36	150.98	181.69
Economic (full ownership) costs:											
Variable cash expenses	65.98	60.77	62.71	51.58	42.86	46.02	49.38	71.24	74.23	78.10	80.54
General farm overhead	6.93	7.10	7.23	7.18	6.94	6.93	10.09	7.52	6.51	7.25	6.86
Taxes and insurance	4.33	4.69	5.10	7.67	7.94	8.30	8.54	9.18	6.99	7.83	7.75
Capital replacement	21.32	22.56	22.72	27.80	27.94	28.66	30.56	20.84	22.34	24.08	27.06
Operating capital	3.42	2.39	2.88	1.74	1.08	1.28	1.54	2.86	2.77	2.12	1.44
Other nonland capital	3.26	3.11	3.85	4.87	4.73	5.45	5.99	12.84	9.34	11.21	13.23
Land	30.22	33.19	33.43	26.03	20.06	23.59	36.10	31.75	29.70	31.96	35.52
Unpaid labor	9.57	9.58	9.45	9.20	9.38	9.52	9.53	10.87	12.04	12.03	12.57
Total, economic costs	145.03	143.39	147.37	136.07	120.93	129.11	151.74	167.10	163.92	174.58	184.97
Residual returns to management and risk	-12.49	15.29	6.92	-14.14	-32.67	-13.20	33.11	-46.83	-24.56	-23.60	-3.28
Harvest-period price (dollars/bu.)	5.43	7.86	6.20	4.98	4.88	5.54	7.47	5.83	5.92	5.64	5.57
Yield (bu./planted acre)	24.40	20.20	24.88	24.47	18.10	20.93	24.74	20.63	23.54	26.77	32.62

1/ Cost of custom operations and technical service. 2/ Cost of purchased irrigation water.
Note: Survey base changed in 1985 and 1989.

Figure 18

Rice Production Regions

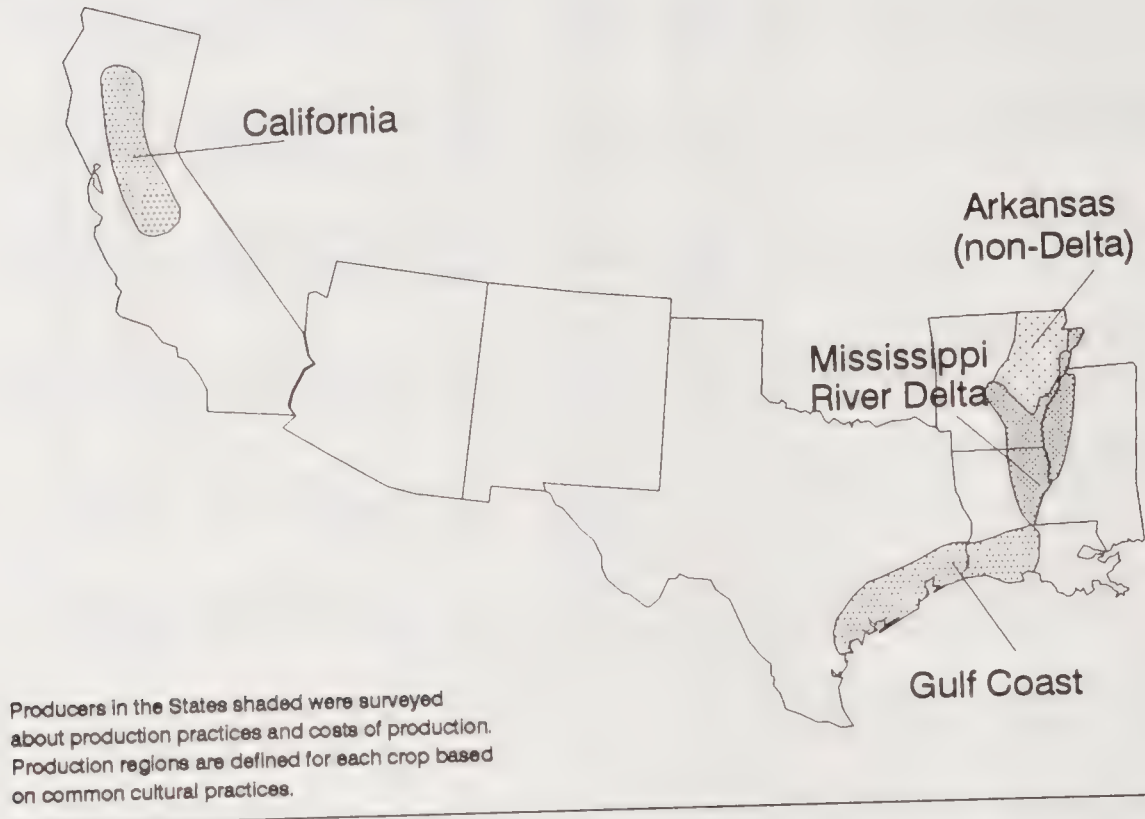
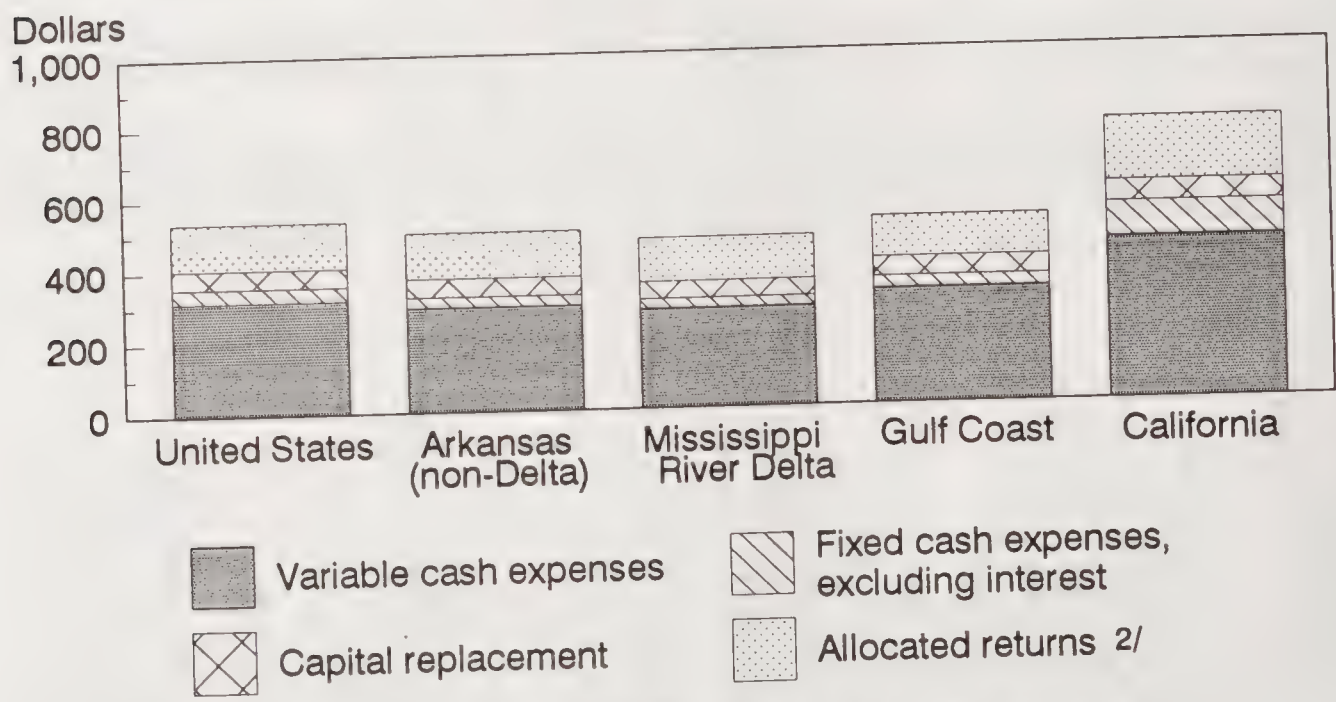


Figure 19

Rice production economic costs per planted acre, 1992 1/



1/ Excluding government payments. 2/ Income foregone by allocating resources owned by the operation (operating and other nonland capital, land, and unpaid labor) to rice production rather than some income-producing use.

Table 29A--U.S. rice production cash costs and returns, 1982-92											
Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Rice	356.65	400.12	393.22	430.71	218.41	263.89	366.85	415.64	319.42	407.88	370.79
Total, gross value of production	356.65	400.12	393.22	430.71	218.41	263.89	366.85	415.64	319.42	407.88	370.79
Cash expenses:											
Seed	26.10	25.89	25.51	24.21	19.89	21.01	21.22	21.43	21.51	20.42	20.76
Fertilizer	37.78	35.51	35.61	34.06	35.34	30.96	35.45	38.43	35.59	34.26	42.08
Chemicals	26.63	28.04	5.51	5.69	42.06	39.08	39.21	40.60	42.59	46.99	52.33
Custom operations 1/	33.36	34.08	53.16	53.12	37.81	37.51	32.62	34.71	35.53	37.19	41.85
Fuel, lube, and electricity	50.48	46.45	38.72	44.56	37.53	47.10	55.19	58.11	64.23	68.91	64.80
Repairs	21.01	22.24	28.23	28.72	22.24	23.34	26.78	28.32	30.01	31.13	25.26
Hired labor	20.86	20.79	25.35	26.09	39.34	39.09	34.70	35.92	38.55	40.12	32.44
Drying 2/	36.30	35.29	32.04	34.67	43.32	39.08	39.02	40.80	40.20	41.80	27.10
Other variable cash expenses 3/	20.03	20.10	20.45	20.29	9.68	8.76	8.07	8.48	8.33	9.49	9.45
Total, variable cash expenses	272.55	268.39	264.58	271.41	287.21	285.93	292.26	306.80	316.54	330.31	316.07
General farm overhead	23.40	23.08	23.67	26.08	20.77	20.28	21.60	20.97	23.96	22.21	20.10
Taxes and insurance	9.96	10.47	12.26	13.21	11.24	12.02	12.01	12.43	12.57	12.65	18.89
Interest	58.23	49.38	54.02	52.40	35.10	26.05	24.71	25.75	27.81	26.72	22.61
Total, fixed cash expenses	91.59	82.93	89.95	91.69	67.11	58.35	58.32	59.15	64.34	61.58	61.60
Total, cash expenses	364.14	351.32	354.53	363.10	354.32	344.28	350.58	365.95	380.88	391.89	377.67
Gross value of production less cash expenses											
	-7.49	48.80	38.69	67.61	-135.91	-80.39	16.27	49.69	-61.46	15.99	-6.88
Harvest-period price (dollars/cwt.)											
	7.61	8.79	8.05	8.01	3.83	4.83	6.82	7.45	6.06	7.52	6.32
Yield (cwt./planted acre)											
	46.86	45.53	48.87	53.78	56.97	54.67	53.79	55.79	52.71	54.24	58.67

Table 29B--U.S. rice production economic costs and returns, 1982-92											
Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Rice	356.65	400.12	393.22	430.71	218.41	263.89	366.85	415.64	319.42	407.88	370.79
Total, gross value of production	356.65	400.12	393.22	430.71	218.41	263.89	366.85	415.64	319.42	407.88	370.79
Economic (full ownership) costs:											
Variable cash expenses	272.55	268.39	264.58	271.41	287.21	285.93	292.26	306.80	316.54	330.31	316.07
General farm overhead	23.40	23.08	23.67	26.08	20.77	20.28	21.60	20.97	23.96	22.21	20.10
Taxes and insurance	9.96	10.47	12.26	13.21	11.24	12.02	12.01	12.43	12.57	12.65	18.89
Capital replacement	45.27	47.94	49.71	51.44	40.69	44.27	41.54	43.81	45.76	47.79	52.12
Operating capital	8.89	6.78	7.88	6.18	5.01	5.65	10.11	12.33	11.82	8.98	5.64
Other nonland capital	7.62	7.31	10.12	10.03	7.65	8.01	16.70	20.17	22.21	24.72	20.54
Land	53.80	65.00	68.86	75.74	25.59	34.24	61.89	72.78	48.67	65.24	78.65
Unpaid labor	14.50	14.44	17.62	18.13	23.20	23.54	22.88	23.95	25.20	27.33	25.23
Total, economic costs	435.99	443.42	454.70	472.21	421.36	433.94	478.99	513.14	506.73	539.23	537.24
Residual returns to management and risk	-79.34	-43.30	-61.48	-41.50	-202.95	-170.05	-112.14	-97.50	-187.31	-131.35	-166.45
Harvest-period price (dollars/cwt.)	7.61	8.79	8.05	8.01	3.83	4.83	6.82	7.45	6.06	7.52	6.32
Yield (cwt./planted acre)	46.86	45.53	48.87	53.78	56.97	54.67	53.79	55.79	52.71	54.24	58.67
1/ Cost of custom operations and technical services. 2/ Commercial drying only, beginning in 1992. 3/ Cost of purchased irrigation water.											
Note: Survey base changed in 1984, 1986, and 1992.											

1/ Cost of custom operations and technical services. 2/ Commercial drying only, beginning in 1992. 3/ Cost of purchased irrigation water.
 Note: Survey base changed in 1984, 1986, and 1992.

Table 29C--U.S. rice production cash costs and returns, including direct Government payments and program participation costs, 1988-92

Item	1988	1989	1990	1991	1992
Dollars per planted acre					
Gross value of production (including direct Government payments):					
Market value of rice	366.85	415.64	319.42	407.88	370.79
Direct Government payments 1/	219.76	232.26	247.37	201.01	221.11
Haying/grazing on ACR and CU acreage	0.05	0.06	0.05	0.05	0.03
Total, gross value of production	586.66	647.96	566.84	608.94	591.93
Cash expenses:					
Seed	21.22	21.43	21.51	20.42	20.76
Fertilizer	35.45	38.43	35.59	34.26	42.08
Chemicals	39.23	40.62	42.61	47.01	52.35
Custom operations 2/	32.62	34.71	35.53	37.19	41.86
Fuel, lube, and electricity	55.67	58.60	64.80	69.54	64.94
Repairs	28.09	29.69	31.46	32.61	25.43
Hired labor	34.88	36.10	38.75	40.32	32.49
Drying 3/	39.02	40.80	40.20	41.80	27.10
Other variable cash expenses 4/	8.12	8.54	8.38	9.54	9.54
Total, variable cash expenses	294.30	308.92	318.83	332.69	316.55
General farm overhead	24.76	24.04	27.53	25.36	22.48
Taxes and insurance	14.14	15.06	14.93	13.79	21.66
Interest	28.40	29.60	32.02	30.57	25.52
Total, fixed cash expenses	67.30	68.70	74.48	69.72	69.66
Total, cash expenses	361.60	377.62	393.31	402.41	386.21
Gross value of production less cash expenses	225.06	270.34	173.53	206.53	205.72
Harvest-period price (dollars/cwt.)	6.82	7.45	6.06	7.52	6.32
Yield (cwt./planted acre)	53.79	55.79	52.71	54.24	58.67
Percent of planted rice acres in program	0.94	0.95	0.94	0.96	0.96

Table 29D--U.S. rice production economic costs and returns, including direct Government payments and program participation costs, 1988-92

Item	1988	1989	1990	1991	1992
Dollars per planted acre					
Gross value of production (including direct Government payments):					
Market value of rice	366.85	415.64	319.42	407.88	370.79
Direct Government payments 1/	219.76	232.26	247.37	201.01	221.11
Haying/grazing on ACR and CU acreage	0.05	0.06	0.05	0.05	0.03
Total, gross value of production	586.66	647.96	566.84	608.94	591.93
Economic (full ownership) costs:					
Variable cash expenses	294.30	308.92	318.83	332.69	316.55
General farm overhead	24.76	24.04	27.53	25.36	22.48
Taxes and insurance	14.14	15.06	14.93	13.79	21.66
Capital replacement	42.14	44.44	46.43	48.48	52.30
Operating capital	10.18	12.42	11.91	9.05	5.65
Other nonland capital	17.14	20.71	22.79	25.36	20.64
Land	115.90	131.34	110.19	118.26	120.08
Unpaid labor	23.02	24.09	25.36	27.49	25.28
Total, economic costs	541.58	581.02	577.97	600.48	584.64
Residual returns to management and risk	45.08	66.94	-11.13	8.46	7.29
Harvest-period price (dollars/cwt.)	6.82	7.45	6.06	7.52	6.32
Yield (cwt./planted acre)	53.79	55.79	52.71	54.24	58.67
Percent of planted rice acres in program	0.94	0.95	0.94	0.96	0.96

1/ Deficiency payments and marketing loan payments. Payments not adjusted for payment limitations. 2/ Cost of custom operations and technical services. 3/ Commercial drying only beginning in 1992. 4/ Cost of purchased irrigation water, cover crop seed, other input items.

Note: Survey base changed in 1984, 1986 and 1992.

Table 30A--Rice production cash costs and returns, Arkansas (non-Delta), 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Rice	333.63	381.21	379.02	445.69	208.79	263.71	370.69	420.14	300.41	400.32	369.15
Total, gross value of production	333.63	381.21	379.02	445.69	208.79	263.71	370.69	420.14	300.41	400.32	369.15
Cash expenses:											
Seed	24.95	27.43	26.75	21.78	18.72	19.98	19.06	19.46	19.60	16.44	19.26
Fertilizer	36.00	32.08	27.89	27.11	31.39	27.50	32.06	34.68	31.64	28.13	38.32
Chemicals	25.40	26.69	1.21	1.21	32.67	31.90	32.41	33.69	35.47	38.53	51.18
Custom operations 1/	25.40	26.22	42.20	41.79	29.62	30.43	25.31	26.98	27.82	28.49	34.37
Fuel, lube, and electricity	52.82	48.61	46.28	54.54	38.23	50.77	58.97	62.55	70.15	75.70	67.84
Repairs	19.91	21.14	32.25	33.08	28.10	28.33	30.40	31.92	33.36	33.36	25.69
Hired labor	22.19	21.20	27.03	26.85	35.18	34.94	32.40	33.60	37.30	40.53	30.00
Drying 2/	34.12	33.78	20.73	23.31	33.99	32.70	32.63	34.90	31.83	32.41	24.25
Other variable cash expenses 3/	0.00	0.00	0.00	0.00	1.33	1.32	1.33	1.37	1.42	1.44	0.98
Total, variable cash expenses	240.79	237.15	224.34	229.67	249.23	257.87	262.90	277.63	287.15	295.03	291.89
General farm overhead	17.37	17.25	17.78	26.25	16.61	16.22	18.35	17.81	20.62	18.72	13.79
Taxes and insurance	8.25	8.84	11.27	12.16	12.74	13.29	12.69	13.10	13.30	13.47	16.64
Interest	56.08	35.18	45.16	49.87	33.02	24.84	26.33	27.40	30.08	28.69	22.95
Total, fixed cash expenses	81.70	61.27	74.21	88.28	62.37	54.35	57.37	58.31	64.00	60.88	53.38
Total, cash expenses	322.49	298.42	298.55	317.95	311.60	312.22	320.27	335.94	351.15	355.91	345.27
Gross value of production less cash expenses	11.14	82.79	80.97	127.74	-102.81	-48.51	50.42	84.20	-50.74	44.41	23.88
Harvest-period price (dollars/cwt.)	7.74	8.93	8.19	8.57	3.87	4.92	6.93	7.52	6.08	7.70	6.49
Yield (cwt./planted acre)	43.10	42.69	46.28	52.01	53.95	53.60	53.49	55.87	49.41	51.99	56.88

Table 30B--Rice production economic costs and returns, Arkansas (non-Delta), 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Rice	333.63	381.21	379.02	445.69	208.79	263.71	370.69	420.14	300.41	400.32	369.15
Total, gross value of production	333.63	381.21	379.02	445.69	208.79	263.71	370.69	420.14	300.41	400.32	369.15
Economic (full ownership) costs:											
Variable cash expenses	240.79	237.15	224.34	229.67	249.23	257.87	262.90	277.63	287.15	295.03	291.89
General farm overhead	17.37	17.25	17.78	26.25	16.61	16.22	18.35	17.81	20.62	18.72	13.79
Taxes and insurance	8.25	8.84	11.27	12.16	12.74	13.29	12.69	13.10	13.30	13.47	16.64
Capital replacement	41.70	44.32	56.15	57.58	60.45	60.94	45.50	47.81	49.44	51.66	51.76
Operating capital	8.05	6.34	6.86	5.33	4.59	5.27	9.10	11.16	10.73	8.02	5.21
Other nonland capital	7.30	7.02	10.97	10.72	10.59	10.49	17.85	21.53	23.65	26.40	22.02
Land	53.92	67.27	78.15	94.90	15.84	29.01	58.62	69.63	40.30	63.07	75.22
Unpaid labor	15.42	14.74	18.78	18.66	16.30	16.19	16.87	17.48	19.42	21.10	26.61
Total, economic costs	392.80	402.93	424.30	455.27	386.35	409.28	441.88	476.15	464.61	497.47	503.14
Residual returns to management and risk	-59.17	-21.72	-45.28	-9.58	-177.56	-145.57	-71.19	-56.01	-164.20	-97.15	-133.99
Harvest-period price (dollars/cwt.)	7.74	8.93	8.19	8.57	3.87	4.92	6.93	7.52	6.08	7.70	6.49
Yield (cwt./planted acre)	43.10	42.69	46.28	52.01	53.95	53.60	53.49	55.87	49.41	51.99	56.88

1/ Cost of custom operations and technical services. 2/ Commercial drying only, beginning in 1992. 3/ Cost of purchased irrigation water.
Note: Survey base changed in 1984, 1986, and 1992.

Table 30C--Rice production cash costs and returns including direct Government payments and program participation costs, Arkansas (non-Delta), 1988-92

Item	1988	1989	1990	1991	1992
Dollars per planted acre					
Gross value of production (including direct Government payments):					
Market value of rice	370.69	420.14	300.41	400.32	369.15
Direct Government payments 1/	213.45	226.95	235.75	179.46	206.24
Haying/grazing on ACR and CU acreage	0.03	0.04	0.03	0.03	0.00
Total, gross value of production	584.17	647.13	536.19	579.81	575.39
Cash expenses:					
Seed	19.06	19.46	19.60	16.44	19.26
Fertilizer	32.06	34.68	31.64	28.13	38.32
Chemicals	32.41	33.69	35.47	38.53	51.18
Custom operations 2/	25.31	26.98	27.82	28.49	34.37
Fuel, lube, and electricity	59.35	62.95	70.63	76.23	67.87
Repairs	29.97	31.70	33.29	34.79	25.73
Hired labor	32.56	33.76	37.47	40.71	30.01
Drying 3/	32.63	34.90	31.83	32.41	24.25
Other variable cash expenses 4/	1.42	1.47	1.51	1.53	1.03
Total, variable cash expenses	264.77	279.59	289.26	297.26	292.02
General farm overhead	22.02	21.37	24.74	22.46	15.97
Taxes and insurance	14.38	15.12	15.00	13.91	19.03
Interest	31.39	32.66	35.85	34.20	26.45
Total, fixed cash expenses	67.79	69.15	75.59	70.57	61.45
Total, cash expenses	332.56	348.74	364.85	367.83	353.47
Gross value of production less cash expenses	251.61	298.39	171.34	211.98	221.92
Harvest-period price (dollars/cwt.)	6.93	7.52	6.08	7.70	6.49
Yield (cwt./planted acre)	53.49	55.87	49.41	51.99	56.88
Percent of planted rice acres in program	95	97	95	98	95

Table 30D--Rice production economic costs and returns including direct Government payments and program participation costs, Arkansas (non-Delta), 1988-92

Item	1988	1989	1990	1991	1992
Dollars per planted acre					
Gross value of production (including direct Government payments):					
Market value of rice	370.69	420.14	300.41	400.32	369.15
Direct Government payments 1/	213.45	226.95	235.75	179.46	206.24
Haying/grazing on ACR and CU acreage	0.03	0.04	0.03	0.03	0.00
Total, gross value of production	584.17	647.13	536.19	579.81	575.39
Economic (full ownership) costs:					
Variable cash expenses	264.77	279.59	289.26	297.26	292.02
General farm overhead	22.02	21.37	24.74	22.46	15.97
Taxes and insurance	14.38	15.12	15.00	13.91	19.03
Capital replacement	46.01	48.35	50.01	52.26	51.80
Operating capital	9.16	11.24	10.80	8.09	5.21
Other nonland capital	18.23	21.99	24.16	26.97	22.04
Land	118.03	132.87	103.24	114.94	122.42
Unpaid labor	16.99	17.61	19.56	21.25	26.63
Total, economic costs	509.59	548.14	536.77	557.14	555.12
Residual returns to management and risk	74.58	98.99	-0.58	22.67	20.27
Harvest-period price (dollars/cwt.)	6.93	7.52	6.08	7.70	6.49
Yield (cwt./planted acre)	53.49	55.87	49.41	51.99	56.88
Percent of planted rice acres in program	95	97	95	98	95

1/ Deficiency payments and marketing loan payments. Payments not adjusted for payment limitations. 2/ Cost of custom operations and technical services. 3/ Commercial drying only beginning in 1992. 4/ Cost of purchased irrigation water, cover crop seed, and other input items.

Note: Survey base changed in 1984, 1986 and 1992.

Table 31A--Rice production cash costs and returns, Mississippi River Delta, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments): Rice	307.97	353.60	344.73	396.26	202.77	239.94	351.65	399.69	304.53	373.86	357.07
Total, gross value of production	307.97	353.60	344.73	396.26	202.77	239.94	351.65	399.69	304.53	373.86	357.07
Cash expenses:											
Seed	23.91	26.27	23.48	23.48	17.83	19.01	20.76	20.82	20.85	19.03	20.16
Fertilizer	28.57	29.87	39.61	37.62	31.57	26.00	31.47	34.35	33.27	30.20	39.14
Chemicals	31.55	33.14	12.87	12.87	46.46	45.37	46.10	47.92	50.46	54.81	52.41
Custom operations 1/	30.90	31.93	54.86	55.94	38.52	39.55	37.92	40.44	41.70	42.70	34.44
Fuel, lube, and electricity	52.77	47.20	43.98	48.54	29.37	39.75	53.53	56.07	63.25	67.96	67.09
Repairs	17.53	18.66	22.03	22.87	22.00	21.84	29.00	30.73	32.46	33.92	23.73
Hired labor	16.92	17.82	20.16	20.42	38.88	38.62	38.39	39.81	44.19	46.28	29.28
Drying 2/	30.38	30.24	26.18	30.58	39.93	36.13	40.15	43.03	41.59	39.95	11.6
Other variable cash expenses 3/	0.00	0.00	0.00	0.00	1.74	1.73	1.75	1.83	1.89	1.92	0.01
Total, variable cash expenses	232.53	235.13	243.17	252.32	266.30	268.00	299.07	315.00	329.66	336.77	277.86
General farm overhead	15.99	16.41	16.37	23.34	19.55	19.08	19.61	19.03	22.03	20.00	12.61
Taxes and insurance	8.82	8.03	10.33	11.35	10.70	10.83	10.36	10.60	10.76	10.82	14.57
Interest	51.63	33.47	41.58	44.34	24.11	17.64	17.29	17.73	19.29	18.40	20.08
Total, fixed cash expenses	76.44	57.91	68.28	79.03	54.36	47.55	47.26	47.36	52.08	49.22	47.26
Total, cash expenses	308.97	293.04	311.45	331.35	320.66	315.55	346.33	362.36	381.74	385.99	325.12
Gross value of production less cash expenses	-1.00	60.56	33.28	64.91	-117.89	-75.61	5.32	37.33	-77.21	-12.13	31.95
Harvest-period price (dollars/cwt.)	7.68	8.86	8.03	7.90	3.91	4.98	6.94	7.53	6.12	7.68	6.51
Yield (cwt./planted acre)	40.10	39.91	42.93	50.16	51.86	48.18	50.67	53.08	49.76	48.68	54.85

Table 31B--Rice production economic costs and returns, Mississippi River Delta, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments): Rice	307.97	353.60	344.73	396.26	202.77	239.94	351.65	399.69	304.53	373.86	357.07
Total, gross value of production	307.97	353.60	344.73	396.26	202.77	239.94	351.65	399.69	304.53	373.86	357.07
Economic (full ownership) costs:											
Variable cash expenses	232.53	235.13	243.17	252.32	266.30	268.00	299.07	315.00	329.66	336.77	277.86
General farm overhead	15.99	16.41	16.37	23.34	19.55	19.08	19.61	19.03	22.03	20.00	12.61
Taxes and insurance	8.82	8.03	10.33	11.35	10.70	10.83	10.36	10.60	10.76	10.82	14.57
Capital replacement	38.96	41.43	45.11	46.38	40.29	40.19	39.64	41.86	43.75	45.72	47.71
Operating capital	7.76	5.42	6.80	5.34	4.79	5.43	10.35	12.66	12.31	9.16	4.96
Other nonland capital	6.81	6.56	10.03	9.96	7.81	7.64	15.87	19.18	21.12	23.58	19.64
Land	38.33	48.93	47.91	50.89	21.68	26.06	60.68	71.45	48.61	61.85	81.28
Unpaid labor	11.75	12.38	14.01	14.19	14.75	14.65	15.26	15.82	17.57	18.40	15.68
Total, economic costs	360.95	374.29	393.73	413.77	385.87	391.88	470.84	505.60	505.81	526.30	474.31
Residual returns to management and risk	-52.98	-20.69	-49.00	-17.51	-183.10	-151.94	-119.19	-105.91	-201.28	-152.44	-117.24
Harvest-period price (dollars/cwt.)	7.68	8.86	8.03	7.90	3.91	4.98	6.94	7.53	6.12	7.68	6.51
Yield (cwt./planted acre)	40.10	39.91	42.93	50.16	51.86	48.18	50.67	53.08	49.76	48.68	54.85

1/ Cost of custom operations and technical services. 2/ Commercial drying only, beginning in 1992. 3/ Cost of purchased irrigation water.
Note: Survey base changed in 1984, 1986, and 1992.

Table 31C--Rice production cash costs and returns including direct Government payments and program participation costs, Delta, 1988-92

Item	1988	1989	1990	1991	1992
Dollars per planted acre					
Gross value of production (including direct Government payments):					
Market value of rice	351.65	399.69	304.53	373.86	357.07
Direct Government payments 1/	193.24	202.76	210.06	180.05	183.16
Haying/grazing on ACR and CU acreage	0.18	0.21	0.19	0.19	0.01
Total, gross value of production	545.07	602.66	514.78	554.10	540.24
Cash expenses:					
Seed	20.76	20.82	20.85	19.03	20.16
Fertilizer	31.47	34.35	33.27	30.20	39.14
Chemicals	46.12	47.94	50.48	54.84	52.41
Custom operations 2/	37.92	40.44	41.70	42.70	34.44
Fuel, lube, and electricity	54.25	56.79	64.10	68.88	67.25
Repairs	31.51	33.38	35.23	36.82	23.90
Hired labor	38.67	40.10	44.51	46.61	29.34
Drying 3/	40.15	43.03	41.59	39.95	11.60
Other variable cash expenses 4/	1.75	1.83	1.89	1.92	0.17
Total, variable cash expenses	302.60	318.68	333.62	340.95	278.41
General farm overhead	23.39	22.70	26.27	23.85	15.37
Taxes and insurance	12.23	12.93	12.63	11.50	17.28
Interest	20.49	21.02	22.88	21.83	24.01
Total, fixed cash expenses	56.11	56.65	61.78	57.18	56.66
Total, cash expenses	358.71	375.33	395.40	398.13	335.07
Gross value of production less cash expenses	186.36	227.33	119.38	155.97	205.17
Harvest-period price (dollars/cwt.)	6.94	7.53	6.12	7.68	6.51
Yield (cwt./planted acre)	50.67	53.08	49.76	48.68	54.85
Percent of planted rice acres in program	93	89	88	92	95

Table 31D--Rice production economic costs and returns including direct Government payments and program participation costs, Delta, 1988-92

Item	1988	1989	1990	1991	1992
Dollars per planted acre					
Gross value of production (including direct Government payments):					
Market value of rice	351.65	399.69	304.53	373.86	357.07
Direct Government payments 1/	193.24	202.76	210.06	180.05	183.16
Haying/grazing on ACR and CU acreage	0.18	0.21	0.19	0.19	0.01
Total, gross value of production	545.07	602.66	514.78	554.10	540.24
Economic (full ownership) costs:					
Variable cash expenses	302.60	318.68	333.62	340.95	278.41
General farm overhead	23.39	22.70	26.27	23.85	15.37
Taxes and insurance	12.23	12.93	12.63	11.50	17.28
Capital replacement	40.58	42.86	44.80	46.82	47.87
Operating capital	10.47	12.81	12.46	9.27	4.97
Other nonland capital	16.54	19.99	22.00	24.56	19.73
Land	107.87	123.76	97.48	109.20	106.76
Unpaid labor	15.42	15.99	17.76	18.60	15.72
Total, economic costs	529.10	569.72	567.02	584.75	506.11
Residual returns to management and risk	15.97	32.94	-52.24	-30.65	34.13
Harvest-period price (dollars/cwt.)	6.94	7.53	6.12	7.68	6.51
Yield (cwt./planted acre)	50.67	53.08	49.76	48.68	54.85
Percent of planted rice acres in program	93	89	88	92	95

1/ Deficiency payments and marketing loan payments. Payments not adjusted for payment limitations. 2/ Cost of custom operations and technical services. 3/ Commercial drying only beginning in 1992. 4/ Cost of purchased irrigation water, crop seed, and other input items.

Note: Survey base changed in 1984, 1986 and 1992.

Table 32A--Rice production cash costs and returns, Gulf Coast, 1982-92											
Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Rice	345.07	363.62	371.69	384.13	203.13	247.68	355.79	367.08	326.98	400.73	338.25
Total, gross value of production	345.07	363.62	371.69	384.13	203.13	247.68	355.79	367.08	326.98	400.73	338.25
Cash expenses:											
Seed	26.11	24.74	25.14	26.35	21.90	23.23	24.76	24.98	25.10	24.63	22.53
Fertilizer	42.61	39.59	40.05	38.74	40.36	36.42	43.15	47.24	41.91	43.04	45.18
Chemicals	25.57	27.07	4.45	4.52	40.08	38.83	39.78	41.03	43.02	46.75	47.83
Custom operations 1/	30.89	31.72	56.71	56.42	34.18	35.00	32.42	34.40	35.36	35.98	40.11
Fuel, lube, and electricity	57.31	52.70	32.84	36.49	41.33	46.83	50.82	52.11	57.48	64.03	59.39
Repairs	23.39	24.77	25.20	25.29	19.58	19.62	23.88	25.14	26.71	28.46	24.89
Hired labor	23.25	23.32	18.64	26.31	41.34	41.62	32.62	33.15	33.81	33.50	33.86
Drying 2/	35.73	32.67	41.31	44.24	46.80	43.70	44.41	42.01	47.14	47.74	27.09
Other variable cash expenses 3/	53.96	54.15	55.09	54.65	17.34	16.82	18.29	18.97	19.02	18.59	18.72
Total, variable cash expenses	318.81	310.74	299.43	313.01	302.91	302.07	310.13	319.03	329.55	342.72	319.60
General farm overhead	18.78	18.85	19.26	20.68	18.72	18.27	21.78	20.88	23.99	21.50	16.63
Taxes and insurance	9.06	9.98	9.63	10.49	8.89	9.58	10.44	10.61	10.81	10.88	16.79
Interest	51.88	42.30	44.57	39.22	29.14	21.14	20.64	21.00	22.75	21.86	20.52
Total, fixed cash expenses	79.72	71.13	73.46	70.39	56.75	48.99	52.86	52.49	57.55	54.24	53.94
Total, cash expenses	398.53	381.87	372.89	383.40	359.66	351.06	362.99	371.52	387.10	396.96	373.54
Gross value of production less cash expenses	-53.46	-18.25	-1.20	0.73	-156.53	-103.38	-7.20	-4.44	-60.12	3.77	-35.29
Harvest-period price (dollars/cwt.)	7.77	8.98	8.23	7.94	3.86	4.89	7.03	7.63	6.27	7.69	6.46
Yield (cwt./planted acre)	44.40	40.48	45.15	48.36	52.65	50.63	50.61	48.11	52.15	52.11	52.36
Table 32B--Rice production economic costs and returns, Gulf Coast, 1982-92											
Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Rice	345.07	363.62	371.69	384.13	203.13	247.68	355.79	367.08	326.98	400.73	338.25
Total, gross value of production	345.07	363.62	371.69	384.13	203.13	247.68	355.79	367.08	326.98	400.73	338.25
Economic (full ownership) costs:											
Variable cash expenses	318.81	310.74	299.43	313.01	302.91	302.07	310.13	319.03	329.55	342.72	319.60
General farm overhead	18.78	18.85	19.26	20.68	18.72	18.27	21.78	20.88	23.99	21.50	16.63
Taxes and insurance	9.06	9.98	9.63	10.49	8.89	9.58	10.44	10.61	10.81	10.88	16.79
Capital replacement	53.10	56.13	39.80	41.09	33.84	33.90	38.10	40.04	42.14	45.39	53.17
Operating capital	10.37	8.10	8.67	6.90	4.71	5.32	10.73	12.83	12.31	9.32	5.7
Other nonland capital	8.64	8.27	8.22	8.13	6.55	6.44	15.95	19.22	21.11	23.89	20.17
Land	39.01	43.73	52.70	55.72	9.11	17.35	46.40	50.79	40.76	51.63	60.74
Unpaid labor	16.15	16.21	22.92	18.29	27.95	28.32	29.34	30.47	32.34	32.69	30.28
Total, economic costs	473.93	472.00	460.63	474.31	412.68	421.25	482.87	503.87	513.01	538.02	523.08
Residual returns to management and risk	-128.86	-108.38	-88.94	-90.18	-209.55	-173.57	-127.08	-136.79	-186.03	-137.29	-184.83
Harvest-period price (dollars/cwt.)	7.77	8.98	8.23	7.94	3.86	4.89	7.03	7.63	6.27	7.69	6.46
Yield (cwt./planted acre)	44.40	40.48	45.15	48.36	52.65	50.63	50.61	48.11	52.15	52.11	52.36
1/ Cost of custom operations and technical services. 2/ Commercial drying only, beginning in 1992. 3/ Cost of purchased irrigation water.											
Note: Survey base changed in 1984, 1986, and 1992.											

Table 32C--Rice production cash costs and returns including direct Government payments and program participation costs, Gulf Coast, 1988-92

Item	1988	1989	1990	1991	1992
Dollars per planted acre					
Gross value of production (including direct Government payments):					
Market value of rice	355.79	367.08	326.98	400.73	338.25
Direct Government payments 1/	209.06	223.06	249.10	194.29	223.30
Haying/grazing on ACR and CU acreage	0.00	0.00	0.00	0.00	0.03
Total, gross value of production	564.85	590.14	576.08	595.02	561.58
Cash expenses:					
Seed	24.76	24.98	25.10	24.63	22.53
Fertilizer	43.15	47.24	41.91	43.04	45.18
Chemicals	39.79	41.04	43.03	46.75	47.87
Custom operations 2/	32.42	34.40	35.36	35.98	40.13
Fuel, lube, and electricity	51.29	52.56	58.00	64.65	59.68
Repairs	24.61	25.90	27.50	29.28	25.21
Hired labor	32.78	33.31	33.97	33.65	33.96
Drying 3/	44.41	42.01	47.14	47.74	27.09
Other variable cash expenses 4/	18.31	18.99	19.04	18.62	18.78
Total, variable cash expenses	311.52	320.43	331.05	344.34	320.43
General farm overhead	23.67	22.73	26.14	23.43	17.76
Taxes and insurance	12.64	13.56	13.46	12.09	18.44
Interest	22.40	22.82	24.75	23.76	21.93
Total, fixed cash expenses	58.71	59.11	64.35	59.28	58.13
Total, cash expenses	370.23	379.54	395.40	403.62	378.56
Gross value of production less cash expenses	194.62	210.60	180.68	191.40	183.02
Harvest-period price (dollars/cwt.)	7.03	7.63	6.27	7.69	6.46
Yield (cwt./planted acre)	50.61	48.11	52.15	52.11	52.36
Percent of planted rice acres in program	91	95	95	97	97

Table 32D--Rice production economic costs and returns including direct Government payments and program participation costs, Gulf Coast, 1988-92

Item	1988	1989	1990	1991	1992
Dollars per planted acre					
Gross value of production (including direct Government payments):					
Market value of rice	355.79	367.08	326.98	400.73	338.25
Direct Government payments 1/	209.06	223.06	249.10	194.29	223.30
Haying/grazing on ACR and CU acreage	0.00	0.00	0.00	0.00	0.03
Total, gross value of production	564.85	590.14	576.08	595.02	561.58
Economic (full ownership) costs:					
Variable cash expenses	311.52	320.43	331.05	344.34	320.43
General farm overhead	23.67	22.73	26.14	23.43	17.76
Taxes and insurance	12.64	13.56	13.46	12.09	18.44
Capital replacement	38.61	40.58	42.71	45.97	53.54
Operating capital	10.78	12.88	12.36	9.37	5.72
Other nonland capital	16.34	19.68	21.62	24.44	20.36
Land	91.45	100.94	98.20	100.10	101.58
Unpaid labor	29.49	30.62	32.50	32.85	30.36
Total, economic costs	534.50	561.42	578.04	592.59	568.19
Residual returns to management and risk	30.35	28.72	-1.96	2.43	-6.61
Harvest-period price (dollars/cwt.)	7.03	7.63	6.27	7.69	6.46
Yield (cwt./planted acre)	50.61	48.11	52.15	52.11	52.36
Percent of planted rice acres in program	91	95	95	97	97

1/ Deficiency payments and marketing loan payments. Payments not adjusted for payment limitations. 2/ Cost of custom operations and technical services. 3/ Commercial drying only beginning in 1992. 4/ Cost of purchased irrigation water, cover crop seed, and other input items.

Note: Survey base changed in 1984, 1986 and 1992.

Table 33A--Rice production cash costs and returns, California, 1982-92											
Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Rice	489.34	582.15	534.86	531.88	281.84	316.19	412.87	515.91	401.41	513.93	477.46
Total, gross value of production	489.34	582.15	534.86	531.88	281.84	316.19	412.87	515.91	401.41	513.93	477.46
Cash expenses:											
Seed	31.33	24.15	26.56	26.56	21.09	21.59	22.01	22.06	22.09	24.80	21.91
Fertilizer	45.35	43.52	37.38	34.70	37.26	34.37	38.63	41.07	41.89	39.23	50.95
Chemicals	24.03	25.24	6.00	6.00	49.12	47.96	48.74	50.66	53.34	57.94	65.77
Custom operations 1/	56.50	59.17	66.62	66.05	48.35	49.63	49.38	52.67	54.31	55.62	81.00
Fuel, lube, and electricity	30.54	28.50	26.82	32.28	43.49	47.51	54.85	59.08	58.40	62.15	64.48
Repairs	23.69	25.15	34.65	34.53	20.57	20.58	21.44	22.80	24.49	25.59	27.93
Hired labor	19.55	19.41	30.92	32.65	41.37	44.08	40.36	42.86	42.61	43.08	42.02
Drying 2/	49.72	51.26	46.04	47.33	53.47	47.89	48.03	55.59	55.09	59.15	65.34
Other variable cash expenses 3/	24.32	24.41	24.83	24.63	22.92	23.13	23.05	25.05	25.82	26.12	29.70
Total, variable cash expenses	305.03	300.80	299.82	304.73	337.64	336.74	346.49	371.84	378.04	393.68	449.10
General farm overhead	53.59	54.13	55.16	39.09	35.78	34.93	37.92	36.81	42.60	38.67	60.15
Taxes and insurance	16.44	18.68	22.28	22.78	14.50	14.65	16.80	17.66	18.10	17.93	38.46
Interest	82.97	118.12	108.99	92.12	68.53	51.43	44.44	46.27	50.82	48.48	31.52
Total, fixed cash expenses	153.00	190.93	186.43	153.99	118.81	101.01	99.16	100.74	111.52	105.08	130.13
Total, cash expenses	458.03	491.73	486.25	458.72	456.45	437.75	445.65	472.58	489.56	498.76	579.23
Gross value of production less cash expenses	31.31	90.42	48.61	73.16	-174.61	-121.56	-32.78	43.33	-88.15	15.17	-101.77
Harvest-period price (dollars/cwt.)	7.21	8.32	7.63	7.38	3.69	4.49	5.95	6.61	5.35	6.69	5.57
Yield (cwt./planted acre)	67.87	69.97	70.10	72.07	76.38	70.42	69.39	78.05	75.03	76.82	85.72

Table 33B--Rice production economic costs and returns, California, 1982-92											
Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Rice	489.34	582.15	534.86	531.88	281.84	316.19	412.87	515.91	401.41	513.93	477.46
Total, gross value of production	489.34	582.15	534.86	531.88	281.84	316.19	412.87	515.91	401.41	513.93	477.46
Economic (full ownership) costs:											
Variable cash expenses	305.03	300.80	299.82	304.73	337.64	336.74	346.49	371.84	378.04	393.68	449.10
General farm overhead	53.59	54.13	55.16	39.09	35.78	34.93	37.92	36.81	42.60	38.67	60.15
Taxes and insurance	16.44	18.68	22.28	22.78	14.50	14.65	16.80	17.66	18.10	17.93	38.46
Capital replacement	46.87	49.75	62.22	64.34	30.70	30.71	38.83	41.21	43.99	45.97	59.26
Operating capital	9.44	7.27	10.05	7.93	6.36	7.24	11.99	14.95	14.12	10.71	8.02
Other nonland capital	7.56	7.26	12.22	11.97	5.95	5.84	15.89	19.24	21.36	23.85	19.13
Land	101.71	125.29	111.15	108.62	72.03	81.70	114.12	135.18	104.44	111.14	124.49
Unpaid labor	13.58	13.48	21.49	22.68	42.25	44.21	46.99	49.90	49.61	50.16	28.46
Total, economic costs	554.22	576.67	594.39	582.14	545.21	556.02	629.03	686.79	672.26	692.11	787.07
Residual returns to management and risk	-64.88	5.48	-59.53	-50.26	-263.37	-239.83	-216.16	-170.88	-270.85	-178.18	-309.61
Harvest-period price (dollars/cwt.)	7.21	8.32	7.63	7.38	3.69	4.49	5.95	6.61	5.35	6.69	5.57
Yield (cwt./planted acre)	67.87	69.97	70.10	72.07	76.38	70.42	69.39	78.05	75.03	76.82	85.72

1/ Cost of custom operations and technical services. 2/ Commercial drying only, beginning in 1992. 3/ Cost of purchased irrigation water.
Note: Survey base changed in 1984, 1986, and 1992.

Table 33C--Rice production cash costs and returns including direct Government payments and program participation costs, California, 1988-92

Item	1988	1989	1990	1991	1992
Dollars per planted acre					
Gross value of production (including direct Government payments):					
Market value of rice	412.87	515.91	401.41	513.93	477.46
Direct Government payments 1/	327.26	331.86	379.55	322.03	331.35
Haying/grazing on ACR and Cu acreage	0.00	0.00	0.00	0.00	0.13
Total, gross value of production	740.13	847.77	780.96	835.96	808.94
Cash expenses:					
Seed	22.01	22.06	22.09	24.80	21.91
Fertilizer	38.63	41.07	41.89	39.23	50.95
Chemicals	48.85	50.77	53.46	58.07	65.81
Custom operations 2/	49.41	52.70	54.34	55.65	81.00
Fuel, lube, and electricity	55.18	59.46	58.78	62.57	64.61
Repairs	21.81	23.20	24.92	26.04	28.11
Hired labor	40.49	43.00	42.74	43.21	42.08
Drying 3/	48.03	55.59	55.09	59.15	65.34
Other variable cash expenses 4/	23.15	25.15	25.92	26.22	29.83
Total, variable cash expenses	347.56	373.00	379.23	394.94	449.64
General farm overhead	40.79	39.58	45.82	41.59	65.29
Taxes and insurance	20.16	21.40	22.31	21.91	44.95
Interest	48.58	50.56	55.51	52.95	34.23
Total, fixed cash expenses	109.53	111.54	123.64	116.45	144.47
Total, cash expenses	457.09	484.54	502.87	511.39	594.11
Gross value of production less cash expenses	283.04	363.23	278.09	324.57	214.83
Harvest-period price (dollars/cwt.)	5.95	6.61	5.35	6.69	5.57
Yield (cwt./planted acre)	69.39	78.05	75.03	76.82	85.72
Percent of planted rice acres in program	99	99	99	99	97

Table 33D--Rice production economic costs and returns including direct Government payments and program participation costs, California, 1988-92

Item	1988	1989	1990	1991	1992
Dollars per planted acre					
Gross value of production (including direct Government payments):					
Market value of rice	412.87	515.91	401.41	513.93	477.46
Direct Government payments 1/	327.26	331.86	379.55	322.03	331.35
Haying/grazing on ACR and Cu acreage	0.00	0.00	0.00	0.00	0.13
Total, gross value of production	740.13	847.77	780.96	835.96	808.94
Economic (full ownership) costs:					
Variable cash expenses	347.56	373.00	379.23	394.94	449.64
General farm overhead	40.79	39.58	45.82	41.59	65.29
Taxes and insurance	20.16	21.40	22.31	21.91	44.95
Capital replacement	39.22	41.62	44.42	46.42	59.47
Operating capital	12.03	14.99	14.16	10.74	8.03
Other nonland capital	16.20	19.61	21.77	24.30	19.24
Land	184.67	209.54	172.86	189.44	182.72
Unpaid labor	47.13	50.04	49.75	50.30	28.52
Total, economic costs	707.76	769.78	750.32	779.64	857.86
Residual returns to management and risk	32.37	77.99	30.64	56.32	-48.92
Harvest-period price (dollars/cwt.)	5.95	6.61	5.35	6.69	5.57
Yield (cwt./planted acre)	69.39	78.05	75.03	76.82	85.72
Percent of planted rice acres in program	99	99	99	99	97

1/ Deficiency payments and marketing loan payments. Payments not adjusted for payment limitations. 2/ Cost of custom operations and technical services. 3/ Commercial only beginning in 1992. 4/ Cost of purchased irrigation water, cover crop seed, and other input items.

Note: Survey base changed in 1984, 1986 and 1992.

Figure 20

Peanut Production Regions

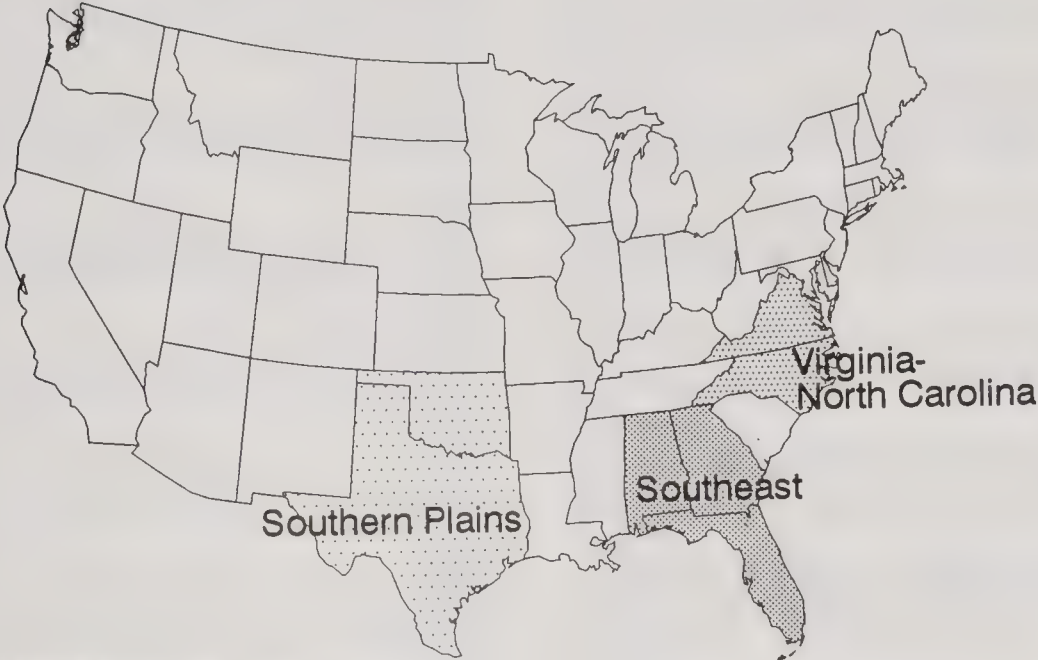
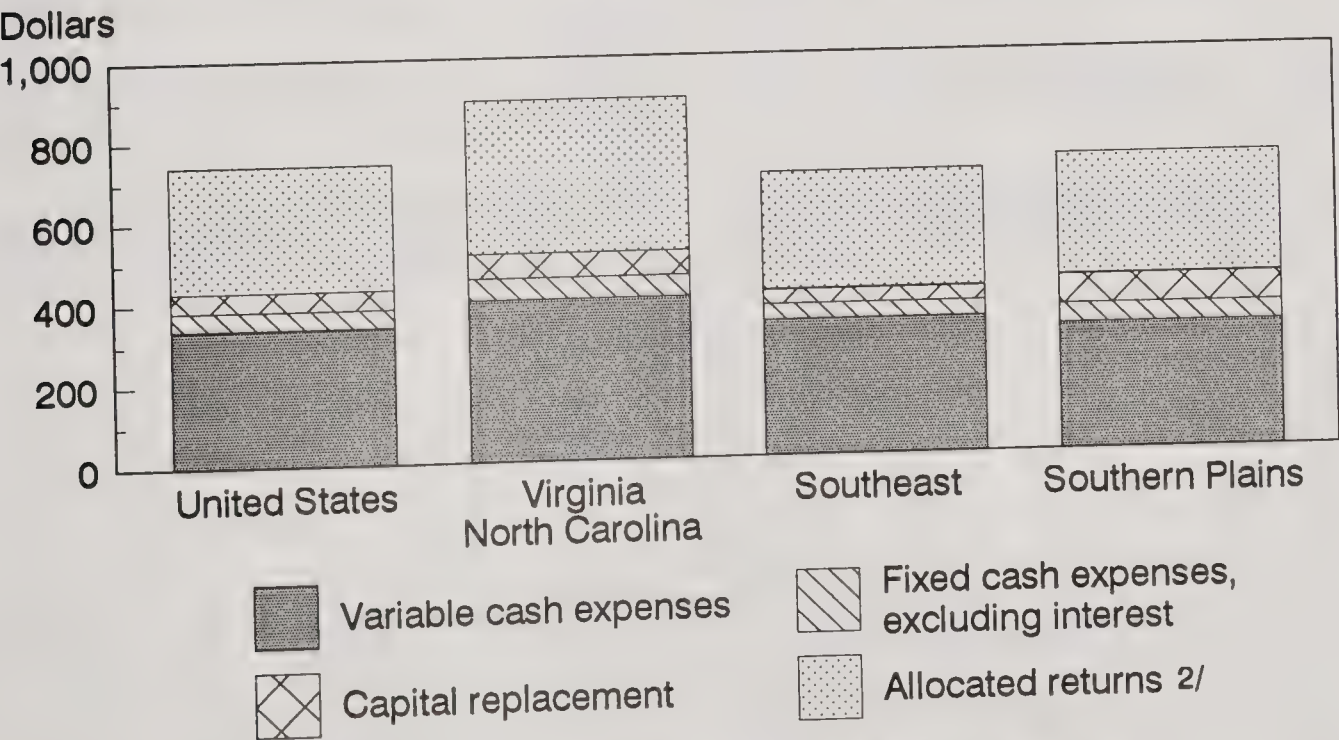


Figure 21

Peanut economic costs per planted acre, 1992 ^{1/}



^{1/} Excluding government payments. ^{2/} Income foregone by allocating resources owned by the operation (operating and other nonland capital, land, and unpaid labor) to peanut production rather than some other income-producing use.

Table 34A--U.S. peanut production cash costs and returns, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Peanuts	656.42	562.79	707.78	621.19	680.57	644.81	681.98	668.22	684.15	690.66	746.96
Peanut hay	10.99	17.22	18.68	16.81	9.21	10.66	13.68	11.31	11.26	6.57	6.70
Total, gross value of production	667.41	580.01	726.46	638.00	689.78	655.47	695.66	679.53	695.41	697.23	753.66
Cash expenses:											
Seed	59.48	62.41	74.09	59.60	63.58	79.70	73.44	70.54	71.98	110.47	70.32
Fertilizer, lime, and gypsum	34.69	33.55	35.85	33.66	27.48	26.49	30.59	31.15	28.77	43.86	43.27
Chemicals	82.82	89.00	92.78	91.57	74.01	71.45	72.91	76.21	80.14	87.56	89.70
Custom operations 1/	7.94	7.94	8.32	7.35	9.33	9.30	9.47	9.99	10.30	8.01	7.90
Fuel, lube, and electricity	33.96	30.86	27.09	30.65	27.85	34.08	33.72	36.56	38.64	38.02	35.06
Repairs	18.72	19.84	17.79	17.28	18.63	18.82	19.82	20.77	21.17	26.95	29.01
Hired labor	14.77	14.87	14.65	15.73	28.81	31.28	32.62	31.88	32.96	44.35	46.47
Drying	39.74	33.04	39.88	39.05	24.42	24.12	24.85	25.44	21.37	15.32	16.36
Other variable cash expenses 2/	0.20	0.20	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.49	0.49
Total, variable cash expenses	292.32	291.71	310.65	295.10	274.11	295.24	297.42	302.54	305.33	375.03	338.58
General farm overhead	27.36	27.92	28.87	24.31	32.81	31.67	33.71	32.51	37.63	23.98	24.30
Taxes and insurance	9.71	10.54	10.69	10.33	12.59	13.17	13.37	13.72	13.48	19.44	19.12
Interest	96.86	97.80	73.91	65.99	67.57	50.89	46.52	47.77	52.48	46.74	38.44
Total, fixed cash expenses	133.93	136.26	113.47	100.63	112.97	95.73	93.60	94.00	103.59	90.16	81.86
Total, cash expenses	426.25	427.96	424.12	395.73	387.08	390.97	391.02	396.54	408.92	465.19	420.44
Gross value of production less cash expenses	241.16	152.05	302.34	242.27	302.70	264.50	304.64	282.99	286.48	232.04	333.22
Harvest-period price (dollars/lb.)	0.25	0.24	0.25	0.22	0.29	0.28	0.28	0.28	0.35	0.28	0.29
Yield (lbs./planted acre)	2,642.50	2,350.15	2,827.78	2,771.74	2,354.78	2,305.30	2,427.32	2,432.40	1,954.70	2,466.63	2,575.74

Table 34B--U.S. peanut production economic costs and returns, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Peanuts	656.42	562.79	707.78	621.19	680.57	644.81	681.98	668.22	684.15	690.66	746.96
Peanut hay	10.99	17.22	18.68	16.81	9.21	10.66	13.68	11.31	11.26	6.57	6.70
Total, gross value of production	667.41	580.01	726.46	638.00	689.78	655.47	695.66	679.53	695.41	697.23	753.66
Economic (full ownership) costs:											
Variable cash expenses	292.32	291.71	310.65	295.10	274.11	295.24	297.42	302.54	305.33	375.03	338.58
General farm overhead	27.36	27.92	28.87	24.31	32.81	31.67	33.71	32.51	37.63	23.98	24.30
Taxes and insurance	9.71	10.54	10.69	10.33	12.59	13.17	13.37	13.72	13.48	19.44	19.12
Capital replacement	46.88	49.85	49.52	43.05	48.42	48.89	51.51	53.82	54.91	44.74	49.16
Operating capital	11.66	9.56	11.37	8.37	5.95	7.16	8.23	9.64	9.23	10.20	6.04
Other nonland capital	8.36	8.02	9.62	8.06	9.78	9.71	11.91	15.20	16.82	22.12	25.40
Land	92.90	84.63	91.78	84.07	65.07	60.63	63.79	64.90	68.90	88.57	92.58
Peanut quota	N/A	N/A	N/A	N/A	112.96	111.70	113.79	113.90	116.79	113.10	113.58
Unpaid labor	16.01	16.10	15.87	17.05	35.96	38.13	39.50	42.07	43.93	41.18	42.67
Total, economic costs	505.20	498.33	528.37	490.33	597.65	616.30	633.23	648.30	667.02	738.36	711.23
Residual returns to management and risk	162.21	81.68	198.09	147.67	92.13	39.17	62.43	31.23	28.38	-41.13	42.43
Harvest-period price (dollars/lb.)	0.25	0.24	0.25	0.22	0.29	0.28	0.28	0.28	0.35	0.28	0.29
Yield (lbs./planted acre)	2,642.50	2,350.15	2,827.78	2,771.74	2,354.78	2,305.30	2,427.32	2,432.40	1,954.70	2,466.63	2,575.74

1/ Cost of custom operations and technical services. 2/ Cost of purchased irrigation water.

Table 35A--Peanut production cash costs and returns, Virginia and North Carolina, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Peanuts	741.40	525.40	754.40	686.76	900.76	734.81	796.01	761.64	928.23	898.76	921.51
Peanut hay	8.49	13.93	13.89	13.32	9.66	10.95	14.90	12.07	11.84	6.66	7.00
Total, gross value of production	749.89	539.33	768.29	700.08	910.42	745.76	810.91	773.71	940.07	905.42	928.51
Cash expenses:											
Seed	73.02	76.19	89.64	75.22	74.12	86.56	101.35	87.64	87.03	106.82	75.31
Fertilizer, lime, and gypsum	33.64	32.81	31.89	30.69	29.54	29.76	32.07	32.14	31.85	49.06	49.67
Chemicals	95.12	100.01	102.20	102.11	90.59	88.35	89.59	93.97	98.75	108.54	109.48
Custom operations 1/	10.04	9.76	10.08	8.69	9.34	8.79	9.02	10.10	9.69	6.49	6.41
Fuel, lube, and electricity	29.87	26.41	20.69	25.29	33.22	37.32	38.72	38.42	48.69	50.08	39.64
Repairs	16.45	17.36	15.63	15.07	19.52	18.98	20.15	20.27	21.96	28.76	30.23
Hired labor	14.76	15.12	14.95	16.36	37.38	40.62	41.94	41.46	42.61	72.62	75.41
Drying	62.10	44.87	60.36	60.49	26.95	23.28	24.32	22.34	26.82	13.85	12.69
Other variable cash expenses 2/	0.22	0.22	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total, variable cash expenses	335.21	322.75	345.67	334.14	320.66	333.66	357.16	346.34	367.40	436.22	398.84
General farm overhead	36.78	37.06	37.76	25.20	39.65	38.78	41.23	39.76	46.02	27.97	27.66
Taxes and insurance	12.24	12.98	13.23	10.02	17.17	17.54	17.83	17.92	18.31	27.55	27.23
Interest	138.28	110.26	134.05	77.71	52.35	39.73	36.12	37.19	40.78	40.28	33.43
Total, fixed cash expenses	187.30	160.30	185.04	112.93	109.17	96.05	95.18	94.87	105.11	95.80	88.32
Total, cash expenses	522.51	483.05	530.71	447.07	429.83	429.71	452.34	441.21	472.51	532.02	487.16
Gross value of production less cash expenses	227.38	56.28	237.58	253.01	480.59	316.05	358.57	332.50	467.56	373.40	441.35
Harvest-period price (dollars/lb.)	0.27	0.25	0.27	0.24	0.29	0.28	0.28	0.30	0.31	0.29	0.33
Yield (lbs./planted acre)	2,793.20	2,084.35	2,820.20	2,826.16	3,061.27	2,635.69	2,808.86	2,543.00	2,994.30	3,099.17	2,792.46

Table 35B--Peanut production economic costs and returns, Virginia and North Carolina, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Peanuts	741.40	525.40	754.40	686.76	900.76	734.81	796.01	761.64	928.23	898.76	921.51
Peanut hay	8.49	13.93	13.89	13.32	9.66	10.95	14.90	12.07	11.84	6.66	7.00
Total, gross value of production	749.89	539.33	768.29	700.08	910.42	745.76	810.91	773.71	940.07	905.42	928.51
Economic (full ownership) costs:											
Variable cash expenses	335.21	322.75	345.67	334.14	320.66	333.66	357.16	346.34	367.40	436.22	398.84
General farm overhead	36.78	37.06	37.76	25.20	39.65	38.78	41.23	39.76	46.02	27.97	27.66
Taxes and insurance	12.24	12.98	13.23	10.02	17.17	17.54	17.83	17.92	18.31	27.55	27.23
Capital replacement	50.55	53.45	53.98	30.24	57.28	56.60	59.86	61.73	65.40	57.15	60.59
Operating capital	12.66	10.30	11.99	8.99	6.25	7.42	9.07	10.26	9.75	11.86	7.12
Other nonland capital	9.48	9.06	11.07	6.62	12.45	12.02	14.83	18.58	21.63	25.03	27.81
Land	131.94	82.86	121.81	106.77	97.18	80.36	82.77	89.05	97.79	96.15	103.44
Peanut quota	N/A	N/A	N/A	N/A	106.61	106.18	107.48	107.58	110.31	128.55	128.45
Unpaid labor	15.98	16.39	16.20	17.73	35.84	38.99	40.40	40.22	41.28	44.25	46.45
Total, economic costs	604.84	544.85	611.70	539.71	693.09	691.55	730.63	731.44	777.89	854.73	827.59
Residual returns to management and risk	145.05	-5.52	156.59	160.37	217.33	54.21	80.28	42.27	162.18	50.69	100.92
Harvest-period price (dollars/lb.)	0.27	0.25	0.27	0.24	0.29	0.28	0.28	0.30	0.31	0.29	0.33
Yield (lbs./planted acre)	2,793.20	2,084.35	2,820.20	2,826.16	3,061.27	2,635.69	2,808.86	2,543.00	2,994.30	3,099.17	2,792.46

1/ Cost of custom operations and technical services. 2/ Cost of purchased irrigation water.

Table 36A--Peanut production cash costs and returns, Southeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Peanuts	755.91	632.08	782.24	662.70	673.03	675.26	717.16	682.62	583.85	671.10	806.50
Peanut hay	11.41	17.91	17.82	17.08	9.35	10.57	14.36	11.68	11.48	6.10	6.39
Total, gross value of production	767.32	649.99	800.06	679.78	682.38	685.83	731.52	694.30	595.33	677.20	812.89
Cash expenses:											
Seed	62.59	65.37	77.29	61.54	67.08	86.27	74.97	74.25	76.23	116.56	73.86
Fertilizer, lime, and gypsum	41.30	39.08	41.81	39.57	30.40	29.54	34.39	34.48	31.90	45.27	43.22
Chemicals	101.26	106.60	108.81	108.82	80.13	78.23	79.50	83.23	87.57	97.63	101.82
Custom operations 1/	7.34	7.38	7.53	6.62	9.68	9.73	9.96	10.45	10.78	6.88	6.50
Fuel, lube, and electricity	31.40	27.66	22.50	25.29	25.41	33.25	32.16	35.70	35.94	31.98	29.84
Repairs	17.56	18.47	15.95	15.14	17.69	17.87	18.93	19.85	19.97	24.43	25.71
Hired labor	13.59	13.67	13.33	13.87	28.03	29.35	31.25	29.53	31.05	38.07	38.64
Drying	42.51	35.30	41.93	40.50	23.27	22.93	24.32	24.62	16.94	13.83	15.01
Other variable cash expenses 2/	0.27	0.27	0.27	0.27	0.00	0.00	0.00	0.00	0.00	0.04	0.04
Total, variable cash expenses	317.82	313.79	329.42	311.62	281.69	307.17	305.48	312.11	310.38	374.69	334.64
General farm overhead	27.14	27.67	28.14	24.20	35.07	34.09	36.17	34.88	40.37	19.58	19.36
Taxes and insurance	9.38	10.24	10.17	10.16	12.24	12.75	13.01	13.52	13.15	19.62	19.20
Interest	104.25	112.39	65.56	70.56	74.73	57.26	52.65	53.94	59.35	49.02	40.53
Total, fixed cash expenses	140.77	150.30	103.87	104.92	122.04	104.10	101.83	102.34	112.87	88.22	79.09
Total, cash expenses	458.59	464.09	433.29	416.54	403.73	411.27	407.31	414.45	423.25	462.91	413.73
Gross value of production less cash expenses	308.73	185.90	366.77	263.24	278.65	274.56	324.21	279.85	172.08	214.29	399.16
Harvest-period price (dollars/lb.)	0.24	0.23	0.24	0.21	0.28	0.28	0.28	0.27	0.34	0.27	0.30
Yield (lbs./planted acre)	3,110.11	2,702.82	3,219.14	3,132.36	2,384.96	2,382.34	2,556.30	2,561.00	1,717.20	2,485.57	2,688.33

Table 36B--Peanut production economic costs and returns, Southeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Peanuts	755.91	632.08	782.24	662.70	673.03	675.26	717.16	682.62	583.85	671.10	806.50
Peanut hay	11.41	17.91	17.82	17.08	9.35	10.57	14.36	11.68	11.48	6.10	6.39
Total, gross value of production	767.32	649.99	800.06	679.78	682.38	685.83	731.52	694.30	595.33	677.20	812.89
Economic (full ownership) costs:											
Variable cash expenses	317.82	313.79	329.42	311.62	281.69	307.17	305.48	312.11	310.38	374.69	334.64
General farm overhead	27.14	27.67	28.14	24.20	35.07	34.09	36.17	34.88	40.37	19.58	19.36
Taxes and insurance	9.38	10.24	10.17	10.16	12.24	12.75	13.01	13.52	13.15	19.62	19.20
Capital replacement	45.61	48.16	46.64	41.69	47.36	47.89	50.70	52.83	53.35	34.59	36.39
Operating capital	13.37	10.80	12.66	9.34	6.41	7.82	8.84	10.41	10.02	10.19	5.97
Other nonland capital	7.97	7.60	8.90	7.65	9.30	9.24	11.41	14.52	15.87	17.77	19.62
Land	92.27	89.73	87.71	78.84	50.42	47.52	52.98	49.96	44.14	94.74	96.36
Peanut quota	N/A	N/A	N/A	N/A	120.72	120.00	122.46	122.58	125.69	118.89	119.45
Unpaid labor	14.73	14.80	14.45	15.03	32.41	34.01	36.07	38.24	40.67	39.67	40.75
Total, economic costs	528.29	522.80	538.09	498.53	595.62	620.49	637.12	649.05	653.64	729.74	691.74
Residual returns to management and risk	239.03	127.19	261.97	181.25	86.76	65.34	94.40	45.25	-58.31	-52.54	121.15
Harvest-period price (dollars/lb.)	0.24	0.23	0.24	0.21	0.28	0.28	0.28	0.27	0.34	0.27	0.30
Yield (lbs./planted acre)	3,110.11	2,702.82	3,219.14	3,132.36	2,384.96	2,382.34	2,556.30	2,561.00	1,717.20	2,485.57	2,688.33

1/ Cost of custom operations and technical services. 2/ Cost of purchased irrigation water.

Table 37A--Peanut production cash costs and returns, Southern Plains, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Peanuts	378.30	417.50	456.70	464.12	545.46	502.10	501.46	564.45	780.24	569.19	564.54
Peanut hay	11.99	17.98	24.89	18.71	8.45	10.73	10.88	9.75	10.48	7.88	7.28
Total, gross value of production	390.29	435.48	481.59	482.83	553.91	512.83	512.34	574.20	790.72	577.07	571.82
Cash expenses:											
Seed	42.57	44.50	52.81	42.87	45.10	57.43	49.64	48.52	50.02	94.90	58.72
Fertilizer, lime, and gypsum	21.33	20.21	21.72	20.52	16.94	16.07	18.66	20.34	17.82	36.60	39.43
Chemicals	33.92	36.51	39.25	38.77	43.07	41.81	42.34	44.38	46.79	45.66	48.33
Custom operations 1/	7.59	8.02	9.31	8.27	8.22	8.49	8.39	8.89	9.37	12.21	12.21
Fuel, lube, and electricity	42.55	42.27	45.27	48.61	31.55	34.08	34.73	37.71	39.52	48.37	44.77
Repairs	22.95	25.18	24.79	24.50	20.91	21.28	22.15	23.69	24.09	33.24	36.18
Hired labor	17.32	17.67	18.22	20.12	25.04	30.07	30.07	32.05	32.09	45.75	47.42
Drying	16.87	18.38	18.06	19.27	26.17	27.88	26.73	29.83	30.46	20.52	21.89
Other variable cash expenses 2/	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	2.09	2.09
Total, variable cash expenses	205.11	212.75	229.44	222.94	217.00	237.11	232.71	245.41	250.16	339.34	311.04
General farm overhead	20.71	21.57	24.06	23.95	21.01	20.33	21.50	20.73	23.99	34.43	34.07
Taxes and insurance	8.50	9.43	10.23	11.00	10.41	11.33	11.31	11.46	11.23	14.06	13.91
Interest	49.66	51.69	51.38	45.34	56.73	41.47	37.20	38.50	42.05	43.98	36.54
Total, fixed cash expenses	78.87	82.69	85.67	80.29	88.15	73.13	70.01	70.69	77.27	92.47	84.52
Total, cash expenses	283.98	295.44	315.11	303.23	305.15	310.24	302.72	316.10	327.43	431.81	395.56
Gross value of production less cash expenses	106.31	140.04	166.48	179.60	248.76	202.59	209.62	258.10	463.29	145.26	176.26
Harvest-period price (dollars/lb.)	0.25	0.25	0.27	0.26	0.31	0.27	0.28	0.28	0.40	0.28	0.26
Yield (lbs./planted acre)	1,523.50	1,668.16	1,704.12	1,791.96	1,752.30	1,874.28	1,790.92	1,994.50	1,950.60	2,032.81	2,171.30

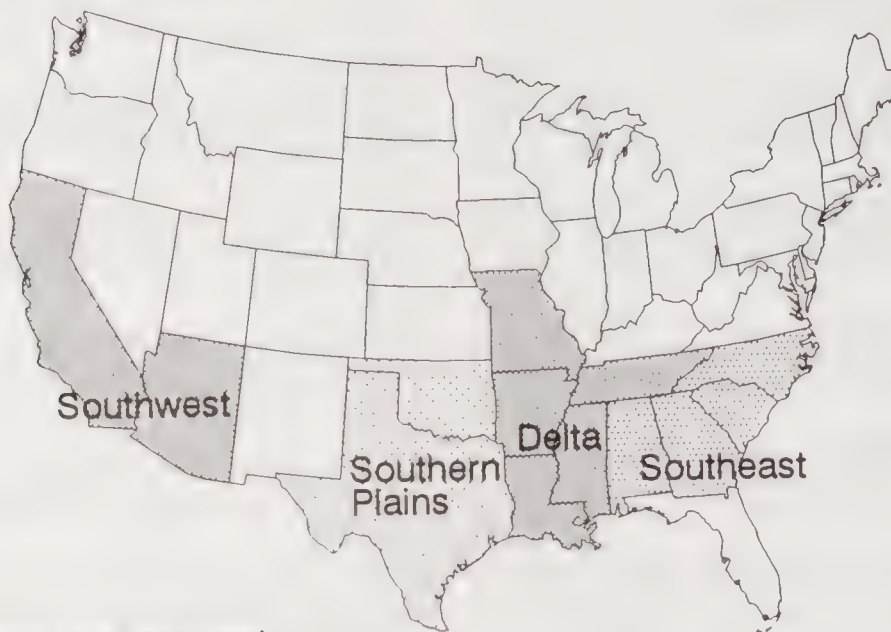
Table 37B--Peanut production economic costs and returns, Southern Plains, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production:											
Peanuts	378.30	417.50	456.70	464.12	545.46	502.10	501.46	564.45	780.24	569.19	564.54
Peanut hay	11.99	17.98	24.89	18.71	8.45	10.73	10.88	9.75	10.48	7.88	7.28
Total, gross value of production	390.29	435.48	481.59	482.83	553.91	512.83	512.34	574.20	790.72	577.07	571.82
Economic (full ownership) costs:											
Variable cash expenses	205.11	212.75	229.44	222.94	217.00	237.11	232.71	245.41	250.16	339.34	311.04
General farm overhead	20.71	21.57	24.06	23.95	21.01	20.33	21.50	20.73	23.99	34.43	34.07
Taxes and insurance	8.50	9.43	10.23	11.00	10.41	11.33	11.31	11.46	11.23	14.06	13.91
Capital replacement	46.83	51.35	54.40	56.18	45.35	46.30	48.02	51.26	52.46	66.87	72.80
Operating capital	7.22	5.88	7.13	5.39	4.31	5.22	5.86	7.05	6.64	9.23	5.55
Other nonland capital	8.35	8.28	10.58	10.22	9.33	9.39	11.33	14.86	16.40	33.05	37.80
Land	64.74	73.18	80.25	80.73	87.48	82.25	81.67	91.68	120.57	66.09	69.19
Peanut quota	N/A	N/A	N/A	N/A	93.69	92.50	93.36	93.45	95.82	86.97	86.66
Unpaid labor	18.76	19.15	19.74	21.79	46.87	48.57	48.69	50.65	50.65	43.72	44.93
Total, economic costs	380.22	401.59	435.83	432.20	535.45	553.00	554.45	586.55	627.92	693.76	675.95
Residual returns to management and risk	10.07	33.89	45.76	50.63	18.46	-40.17	-42.11	-12.35	162.80	-116.69	-104.13
Harvest-period price (dollars/lb.)	0.25	0.25	0.27	0.26	0.31	0.27	0.28	0.28	0.40	0.28	0.26
Yield (lbs./planted acre)	1,523.50	1,668.16	1,704.12	1,791.96	1,752.30	1,874.28	1,790.92	1,994.53	1,950.60	2,032.81	2,171.30

1/ Cost of custom operations and technical services. 2/ Cost of purchased irrigation water.

Figure 22

Cotton Production Regions

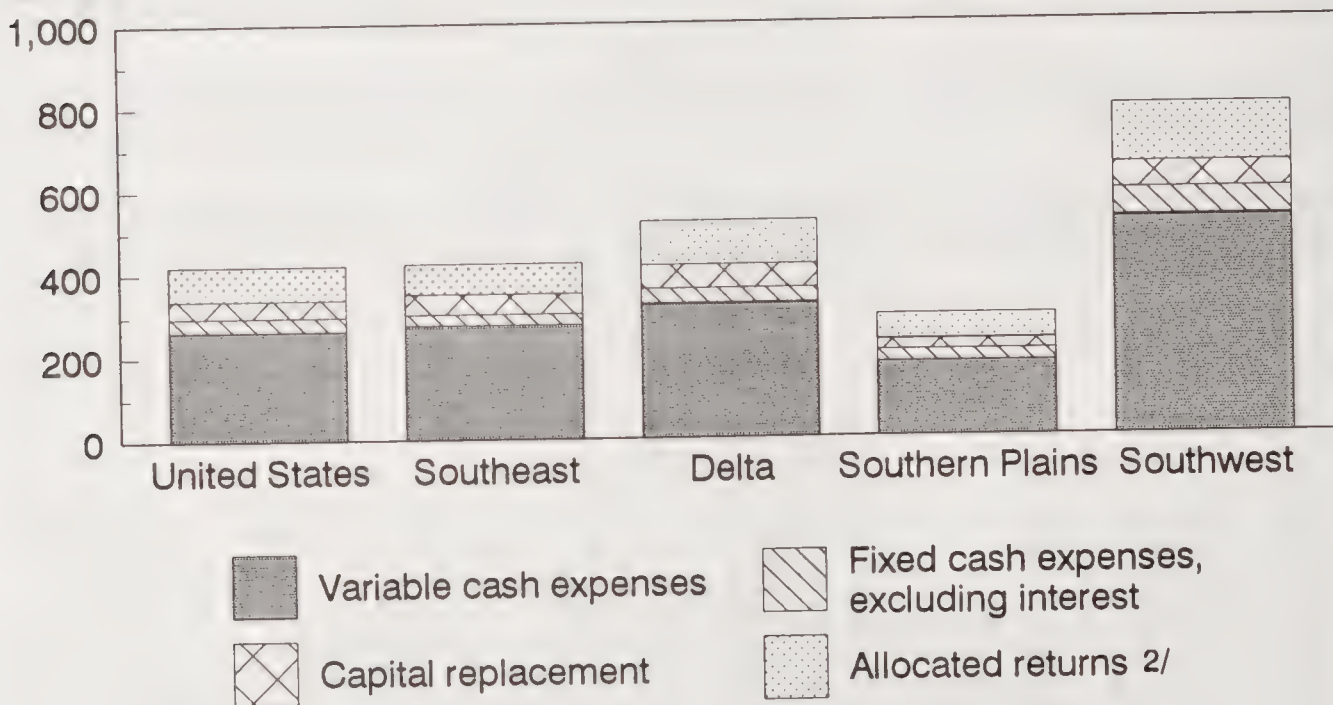


Producers in the States shaded were surveyed about production practices and costs of production. Production regions are defined for each crop based on common cultural practices.

Figure 23

Cotton production economic costs per planted acre, 1992 ^{1/}

Dollars



^{1/} Excluding government payments. ^{2/} Income foregone by allocating resources owned by the operation (operating and other nonland capital, land, and unpaid labor) to cotton production rather than some other income-producing use.

Table 38A--U.S. cotton production cash costs and returns, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Cotton	319.22	312.23	318.77	330.89	225.95	446.48	314.46	362.87	404.44	338.85	280.04
Cottonseed	35.16	64.82	46.48	32.97	29.73	47.13	58.58	48.57	59.20	34.42	43.10
Total, gross value of production	354.38	377.05	365.25	363.86	255.68	493.61	373.04	411.44	463.64	373.27	323.14
Cash expenses:											
Seed	8.53	8.35	8.96	8.75	6.23	8.16	8.65	8.44	9.11	13.30	13.61
Fertilizer, lime, and gypsum	26.79	22.36	25.59	24.97	23.60	22.65	26.39	28.83	26.49	35.62	34.97
Chemicals	47.70	48.88	51.26	52.60	44.23	44.51	45.75	48.71	51.19	48.19	49.69
Custom operations	17.62	17.11	17.67	15.37	11.91	13.44	13.17	13.31	14.42	17.29	17.16
Fuel, lube, and electricity	35.98	32.72	29.42	34.02	22.60	31.53	32.87	34.25	36.49	34.65	32.01
Repairs	18.45	19.70	19.03	19.05	19.74	21.13	23.28	23.64	24.87	23.34	21.63
Hired labor	23.32	23.28	23.16	24.60	37.69	40.21	41.01	42.96	43.80	38.43	39.79
Ginning	49.86	44.95	54.48	58.50	43.37	65.39	55.77	50.60	56.47	50.41	49.38
Other variable cash expenses 1/	7.55	7.57	7.70	7.64	8.47	9.12	9.03	9.30	8.67	5.31	5.31
Total, variable cash expenses	235.80	224.92	237.27	245.50	217.84	256.14	255.92	260.04	271.51	266.54	263.55
General farm overhead	23.88	23.23	24.28	21.16	21.29	21.59	23.46	22.29	25.80	15.67	14.87
Taxes and insurance	9.33	9.30	10.06	10.55	12.66	14.13	14.58	15.00	15.14	19.96	19.14
Interest	54.88	54.76	55.27	45.88	44.01	34.22	31.27	32.20	35.30	21.33	17.72
Total, fixed cash expenses	88.09	87.29	89.61	77.59	77.96	69.94	69.31	69.49	76.24	56.96	51.73
Total, cash expenses	323.89	312.21	326.88	323.09	295.80	326.08	325.23	329.53	347.75	323.50	315.28
Gross value of production less cash expenses	30.49	64.84	38.37	40.77	-40.12	167.53	47.81	81.91	115.89	49.77	7.86
Harvest-period price (dollars/lb.)	0.58	0.66	0.57	0.55	0.49	0.65	0.53	0.66	0.67	0.59	0.50
Yield (lbs./planted acre)	550.73	470.40	554.65	598.35	462.97	684.66	593.33	549.80	603.64	574.32	560.07

Table 38B--U.S. cotton production economic costs and returns, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Cotton	319.22	312.23	318.77	330.89	225.95	446.48	314.46	362.87	404.44	338.85	280.04
Cottonseed	35.16	64.82	46.48	32.97	29.73	47.13	58.58	48.57	59.20	34.42	43.10
Total, gross value of production	354.38	377.05	365.25	363.86	255.68	493.61	373.04	411.44	463.64	373.27	323.14
Economic (full ownership) costs:											
Variable cash expenses	235.80	224.92	237.27	245.50	217.84	256.14	255.92	260.04	271.51	266.54	263.55
General farm overhead	23.88	23.23	24.28	21.16	21.29	21.59	23.46	22.29	25.80	15.67	14.87
Taxes and insurance	9.33	9.30	10.06	10.55	12.66	14.13	14.58	15.00	15.14	19.96	19.14
Capital replacement	42.58	44.88	44.06	45.57	50.35	55.16	59.78	62.64	64.69	44.74	41.46
Operating capital	7.76	5.80	6.67	5.38	5.09	6.13	7.22	8.92	8.35	7.25	4.70
Other nonland capital	6.65	6.36	7.88	7.66	8.76	9.39	11.83	15.07	17.16	16.05	14.87
Land 2/	58.00	62.84	60.50	58.63	51.44	83.85	71.00	73.36	82.38	39.32	35.3
Unpaid labor	9.53	9.51	9.46	10.05	20.65	21.36	21.66	22.71	23.46	27.12	26.57
Total, economic costs	393.52	386.84	400.18	404.50	388.08	467.75	465.45	480.03	508.49	436.65	420.46
Residual returns to management and risk	-39.14	-9.79	-34.93	-40.64	-132.40	25.86	-92.41	-68.59	-44.85	-63.38	-97.32
Harvest-period price (dollars/lb.)	0.58	0.66	0.57	0.55	0.49	0.65	0.53	0.66	0.67	0.59	0.50
Yield (lbs./planted acre)	550.73	470.40	554.65	598.35	462.97	684.66	593.33	549.80	603.64	574.32	560.07
1/ Cost of custom operations and purchased irrigation water. 2/ Land costs on land basis.											
Note: Survey base changed in 1987 and 1991.											

Table 39A--Cotton production cash costs and returns, Southeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Cotton	427.81	269.57	412.84	398.45	223.26	396.01	257.84	375.58	336.20	426.81	379.52
Cottonseed	35.27	52.97	49.64	28.95	23.04	34.63	42.53	43.41	44.76	29.23	41.97
Total, gross value of production	463.08	322.54	462.48	427.40	246.30	430.64	300.37	418.99	380.96	456.04	421.49
Cash expenses:											
Seed	5.23	5.52	6.96	6.48	5.36	6.41	6.83	6.79	7.24	8.45	8.62
Fertilizer, lime, and gypsum	49.41	47.55	50.99	47.00	29.41	27.13	32.85	34.87	31.73	47.61	46.79
Chemicals	101.31	105.12	106.95	110.35	99.30	96.99	98.68	103.30	108.90	70.27	79.80
Custom operations	14.03	14.27	14.78	12.76	7.60	9.98	8.28	9.11	8.23	12.62	13.29
Fuel, lube, and electricity	25.13	21.30	18.87	20.63	16.45	21.60	21.88	23.84	28.61	24.76	22.03
Repairs	18.66	19.10	20.13	20.14	18.50	20.33	21.82	23.34	24.94	28.54	25.82
Hired labor	15.81	15.72	15.51	16.17	42.82	44.56	46.37	49.63	51.81	22.14	22.79
Ginning	60.06	33.39	62.18	64.37	37.20	49.60	40.45	48.28	42.28	57.39	56.77
Other variable cash expenses 1/	1.82	1.83	1.86	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total, variable cash expenses	291.46	263.80	298.23	299.74	256.64	276.60	276.96	299.16	303.74	271.78	275.91
General farm overhead	17.35	17.40	17.79	15.23	13.60	13.31	14.01	13.84	16.02	12.14	11.52
Taxes and insurance	8.85	9.38	10.26	11.62	12.72	13.63	14.10	14.94	15.25	17.05	15.59
Interest	66.42	67.61	45.30	44.66	29.96	22.85	20.36	22.20	24.35	25.38	20.80
Total, fixed cash expenses	92.62	94.39	73.35	71.51	56.28	49.79	48.47	50.98	55.62	54.57	47.91
Total, cash expenses	384.08	358.19	371.58	371.25	312.92	326.39	325.43	350.14	359.36	326.35	323.82
Gross value of production less cash expenses	79.00	-35.65	90.90	56.15	-66.62	104.25	-25.06	68.85	21.60	129.69	97.67
Harvest-period price (dollars/lb.)	0.58	0.67	0.58	0.55	0.49	0.66	0.53	0.64	0.66	0.63	0.56
Yield (lbs./planted acre)	739.39	400.00	713.34	728.96	457.82	603.08	486.49	586.85	509.39	677.47	677.71

Table 39B--Cotton production economic costs and returns, Southeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Cotton	427.81	269.57	412.84	398.45	223.26	396.01	257.84	375.58	336.20	426.81	379.52
Cottonseed	35.27	52.97	49.64	28.95	23.04	34.63	42.53	43.41	44.76	29.23	41.97
Total, gross value of production	463.08	322.54	462.48	427.40	246.30	430.64	300.37	418.99	380.96	456.04	421.49
Economic (full ownership) costs:											
Variable cash expenses	291.46	263.80	298.23	299.74	256.64	276.60	276.96	299.16	303.74	271.78	275.91
General farm overhead	17.35	17.40	17.79	15.23	13.60	13.31	14.01	13.84	16.02	12.14	11.52
Taxes and insurance	8.85	9.38	10.26	11.62	12.72	13.63	14.10	14.94	15.25	17.05	15.59
Capital replacement	52.00	53.82	55.95	59.74	58.39	63.37	67.97	73.71	76.63	54.16	49.00
Operating capital	8.82	6.99	7.91	6.18	7.15	8.28	9.47	11.87	11.25	7.39	4.92
Other nonland capital	8.15	7.58	9.89	10.02	9.94	10.71	13.42	17.46	20.29	18.37	16.62
Land 2/	54.80	47.88	54.78	49.25	41.01	46.50	43.95	49.90	45.56	29.46	27.14
Unpaid labor	6.46	6.42	6.33	6.60	16.46	17.34	17.98	20.50	21.80	22.49	23.15
Total, economic costs	447.89	413.27	461.14	458.39	415.91	449.74	457.86	501.38	510.54	432.84	423.85
Residual returns to management and risk	15.19	-90.73	1.34	-30.99	-169.61	-19.10	-157.49	-82.39	-129.58	23.20	-2.36
Harvest-period price (dollars/lb.)	0.58	0.67	0.58	0.55	0.49	0.66	0.53	0.64	0.66	0.63	0.56
Yield (lbs./planted acre)	739.39	400.00	713.34	728.96	457.82	603.08	486.49	586.85	509.39	677.47	677.71

1/ Cost of custom operations and purchased irrigation water. 2/ Land costs on land basis.

Note: Survey base changed in 1987 and 1991.

Table 40A--Cotton production cash costs and returns, Delta, 1982-92											
Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Cotton	426.17	359.38	378.68	366.24	273.78	502.38	350.43	415.75	430.61	502.79	331.47
Cottonseed	36.70	70.01	43.97	26.90	29.10	47.43	57.91	52.44	59.93	40.18	50.70
Total, gross value of production	462.87	429.39	422.65	393.14	302.88	549.81	408.34	468.19	490.54	542.97	382.17
Cash expenses:											
Seed	6.20	6.29	8.58	7.98	5.35	7.65	7.21	7.91	8.57	8.10	7.91
Fertilizer, lime, and gypsum	33.07	32.16	36.45	34.55	30.63	28.47	35.00	37.51	35.29	43.86	45.36
Chemicals	78.42	80.71	82.69	82.95	73.34	70.14	71.17	74.49	78.75	89.89	84.24
Custom operations	11.85	12.06	12.28	10.98	10.99	12.41	12.44	13.06	13.57	20.58	20.78
Fuel, lube, and electricity	28.38	23.07	18.90	22.50	19.24	25.75	27.10	26.64	31.38	29.24	27.31
Repairs	20.92	21.72	22.34	22.03	23.33	24.41	29.24	27.18	28.30	34.60	31.49
Hired labor	18.84	18.96	19.24	18.97	39.36	40.83	41.32	42.83	47.45	45.14	46.67
Ginning	55.09	43.18	57.08	56.83	43.36	60.74	52.14	50.34	51.40	62.83	60.71
Other variable cash expenses 1/	2.48	2.49	2.53	2.51	0.00	0.00	0.00	0.00	0.00	0.01	0.01
Total, variable cash expenses	255.71	241.02	260.44	259.67	246.24	271.08	275.62	279.96	294.71	334.25	324.48
General farm overhead	23.23	23.23	23.67	21.68	21.32	20.54	21.91	21.02	24.33	16.20	15.38
Taxes and insurance	8.52	9.02	9.58	9.90	13.12	13.87	14.85	14.74	14.72	18.98	19.79
Interest	75.89	51.30	63.68	44.09	42.90	32.34	29.34	30.31	33.20	28.16	23.08
Total, fixed cash expenses	107.64	83.55	96.93	75.67	77.34	66.75	66.10	66.07	72.25	63.34	58.25
Total, cash expenses	363.35	324.57	357.37	335.34	323.58	337.83	341.72	346.03	366.96	397.59	382.73
Gross value of production less cash expenses											
	99.52	104.82	65.28	57.80	-20.70	211.98	66.62	122.16	123.58	145.38	-0.56
Harvest-period price (dollars/lb.)											
	0.58	0.66	0.55	0.54	0.48	0.64	0.53	0.64	0.65	0.61	0.49
Yield (lbs./planted acre)	732.53	541.26	690.95	674.14	565.15	779.91	661.18	649.61	662.47	824.25	676.47

Table 40B--Cotton production economic costs and returns, Delta, 1982-92											
Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Cotton	426.17	359.38	378.68	366.24	273.78	502.38	350.43	415.75	430.61	502.79	331.47
Cottonseed	36.70	70.01	43.97	26.90	29.10	47.43	57.91	52.44	59.93	40.18	50.70
Total, gross value of production	462.87	429.39	422.65	393.14	302.88	549.81	408.34	468.19	490.54	542.97	382.17
Economic (full ownership) costs:											
Variable cash expenses	255.71	241.02	260.44	259.67	246.24	271.08	275.62	279.96	294.71	334.25	324.48
General farm overhead	23.23	23.23	23.67	21.68	21.32	20.54	21.91	21.02	24.33	16.20	15.38
Taxes and insurance	8.52	9.02	9.58	9.90	13.12	13.87	14.85	14.74	14.72	18.98	19.79
Capital replacement	52.01	53.83	50.48	48.29	56.25	59.38	67.86	67.09	67.85	63.58	57.86
Operating capital	7.30	5.33	6.52	5.12	5.16	5.83	7.10	8.54	8.33	9.09	5.79
Other nonland capital	7.87	7.34	9.05	8.43	10.56	10.97	14.41	17.54	19.69	19.01	17.3
Land 2/	66.20	60.50	62.88	57.61	69.14	91.46	80.67	91.92	89.00	66.66	59.78
Unpaid labor	7.69	7.74	7.86	7.75	20.73	20.69	21.11	21.90	24.32	21.05	21.76
Total, economic costs	428.53	408.01	430.47	418.45	442.52	493.82	503.53	522.71	542.95	548.82	522.14
Residual returns to management and risk	34.34	21.38	-7.82	-25.31	-139.64	55.99	-95.19	-54.52	-52.41	-5.85	-139.97
Harvest-period price (dollars/lb.)	0.58	0.66	0.55	0.54	0.48	0.64	0.53	0.64	0.65	0.61	0.49
Yield (lbs./planted acre)	732.53	541.26	690.95	674.14	565.15	779.91	661.18	649.61	662.47	824.25	676.47
1/ Cost of custom operations and purchased irrigation water. 2/ Land costs on land basis. Note: Survey base changed in 1987 and 1991.											

Table 41A--Cotton production cash costs and returns, Southern Plains, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Cotton	137.64	172.93	169.33	199.09	123.64	295.23	206.47	185.02	276.34	172.29	112.92
Cottonseed	18.63	41.39	29.27	20.80	14.63	32.27	42.14	31.13	41.23	19.42	20.13
Total, gross value of production	156.27	214.32	198.60	219.89	138.27	327.50	248.61	216.15	317.57	191.71	133.05
Cash expenses:											
Seed	10.23	9.25	9.57	9.51	6.18	8.44	9.44	8.36	9.07	17.50	17.65
Fertilizer	21.20	8.56	9.93	9.49	12.24	11.12	12.69	14.28	12.36	22.28	20.96
Chemicals	21.20	24.14	24.48	24.16	18.82	18.36	18.67	19.58	20.69	19.69	20.70
Custom operations	6.97	7.92	8.00	7.14	8.85	10.11	10.22	9.24	11.60	8.10	7.83
Fuel, lube, and electricity	26.57	26.14	24.72	26.53	20.06	24.53	25.75	26.80	29.48	37.75	35.04
Repairs	14.37	16.14	15.14	14.99	16.52	16.98	17.91	18.53	20.09	28.54	26.96
Hired labor	17.58	18.06	17.73	20.24	26.73	27.61	27.70	28.88	29.02	21.77	22.59
Ginning	27.24	29.95	35.68	39.90	27.90	52.51	46.87	31.83	46.76	31.41	26.25
Other variable cash expenses 1/	1.38	1.39	1.41	1.40	0.24	0.47	0.47	0.50	0.52	0.25	0.25
Total, variable cash expenses	135.74	141.55	146.66	153.36	137.54	170.13	169.70	158.00	179.59	187.29	178.23
General farm overhead	8.60	9.03	9.11	11.02	12.60	12.31	13.04	12.63	14.62	13.42	12.74
Taxes and insurance	5.85	6.25	6.48	7.01	10.04	11.29	11.47	11.85	12.24	16.33	15.91
Interest	20.68	21.75	19.70	20.94	33.00	24.71	22.33	23.17	25.33	11.30	9.26
Total, fixed cash expenses	35.13	37.03	35.29	38.97	55.64	48.31	46.84	47.65	52.19	41.05	37.91
Total, cash expenses	170.87	178.58	181.95	192.33	193.18	218.44	216.54	205.65	231.78	228.34	216.14
Gross value of production less cash expenses	-14.60	35.74	16.65	27.56	-54.91	109.06	32.07	10.50	85.79	-36.63	-83.09
Harvest-period price (dollars/lb.)	0.51	0.60	0.52	0.53	0.49	0.63	0.47	0.62	0.63	0.56	0.45
Yield (lbs./planted acre)	267.63	287.70	322.74	374.83	253.48	470.63	439.29	298.42	438.63	307.66	250.93

Table 41B--Cotton production economic costs and returns, Southern Plains, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Cotton	137.64	172.93	169.33	199.09	123.64	295.23	206.47	185.02	276.34	172.29	112.92
Cottonseed	18.63	41.39	29.27	20.80	14.63	32.27	42.14	31.13	41.23	19.42	20.13
Total, gross value of production	156.27	214.32	198.60	219.89	138.27	327.50	248.61	216.15	317.57	191.71	133.05
Economic (full ownership) costs:											
Variable cash expenses	135.74	141.55	146.66	153.36	137.54	170.13	169.70	158.00	179.59	187.29	178.23
General farm overhead	8.60	9.03	9.11	11.02	12.60	12.31	13.04	12.63	14.62	13.42	12.74
Taxes and insurance	5.85	6.25	6.48	7.01	10.04	11.29	11.47	11.85	12.24	16.33	15.91
Capital replacement	28.84	32.57	33.14	35.60	42.26	43.61	46.00	49.04	52.24	27.26	25.75
Operating capital	4.83	3.87	4.32	3.48	3.35	3.94	4.48	5.63	5.33	4.69	3.18
Other nonland capital	4.60	5.72	5.89	5.77	7.14	7.23	8.89	11.41	13.33	11.94	11.28
Land 2/	28.23	38.89	34.85	39.45	32.57	74.82	57.14	49.87	73.78	22.55	19.97
Unpaid labor	7.18	7.38	7.24	8.27	19.47	20.11	20.16	21.99	21.99	27.14	28.17
Total, economic costs	223.88	244.26	247.69	263.95	264.97	343.44	330.88	320.42	373.12	310.62	295.23
Residual returns to management and risk	-67.61	-29.94	-49.09	-44.06	-126.70	-15.94	-82.27	-104.27	-55.55	-118.91	-162.18
Harvest-period price (dollars/lb.)	0.51	0.60	0.52	0.53	0.49	0.63	0.47	0.62	0.63	0.56	0.45
Yield (lbs./planted acre)	267.63	287.70	322.74	374.83	253.48	470.63	439.29	298.42	438.63	307.66	250.93

1/ Cost of custom operations and purchased irrigation water. 2/ Land costs on land basis.

Table 42A--Cotton production cash costs and returns, Southwest, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Cotton	671.15	742.88	678.84	673.69	547.02	876.89	639.70	828.05	841.11	719.53	617.53
Cottonseed	80.88	142.72	104.73	84.43	93.80	101.19	121.05	100.91	131.00	96.11	116.48
Total, gross value of production	752.03	885.60	783.57	758.12	640.82	978.08	760.75	928.96	972.11	815.64	734.01
Cash expenses:											
Seed	7.68	9.13	8.34	8.57	8.41	8.76	9.29	10.31	11.23	13.98	14.96
Fertilizer, lime, and gypsum	59.37	47.18	50.80	49.89	53.78	49.59	54.40	58.83	58.11	59.90	57.53
Chemicals	67.33	69.91	70.38	69.61	69.60	68.25	70.27	77.55	80.42	50.05	49.38
Custom operations	56.36	56.24	57.6	49.98	26.44	26.53	26.27	28.73	29.47	57.74	58.65
Fuel, lube, and electricity	76.45	72.75	64.16	83.28	41.37	68.67	71.32	76.76	76.76	47.03	43.68
Repairs	27.01	29.43	26.31	27.11	26.46	29.71	31.39	34.22	35.44	33.31	30.49
Hired labor	48.12	49.95	49.48	51.92	76.22	79.73	82.69	86.88	87.36	121.06	119.46
Ginning	105.17	103.26	108.66	119.26	107.56	122.56	97.95	113.62	109.56	97.75	101.65
Other variable cash expenses 1/	37.76	37.89	38.55	38.24	60.25	57.15	56.97	58.34	60.93	47.67	47.67
Total, variable cash expenses	485.25	475.74	474.27	497.86	470.09	510.95	500.55	544.75	549.28	528.49	523.47
General farm overhead	70.98	74.27	76.81	56.39	59.03	57.76	62.61	59.75	69.16	29.58	28.08
Taxes and insurance	20.56	20.18	22.32	22.64	22.23	24.28	24.66	25.85	26.74	43.58	39.49
Interest	122.94	168.45	161.91	131.00	95.60	73.77	66.97	69.20	76.18	45.18	37.03
Total, fixed cash expenses	214.48	262.90	261.04	210.03	176.86	155.81	154.24	154.80	172.08	118.34	104.60
Total, cash expenses	699.73	738.64	735.31	707.89	646.95	666.76	654.79	699.55	721.36	646.83	628.07
Gross value of production less cash expenses	52.30	146.96	48.26	50.23	-6.13	311.32	105.96	229.41	250.75	168.81	105.94
Harvest-period price (dollars/lb.)	0.63	0.72	0.65	0.59	0.49	0.69	0.62	0.70	0.74	0.68	0.57
Yield (lbs./planted acre)	1,073.72	1,028.17	1,044.56	1,146.77	1,112.37	1,269.99	1,031.77	1,182.93	1,136.63	1,058.13	1,083.39

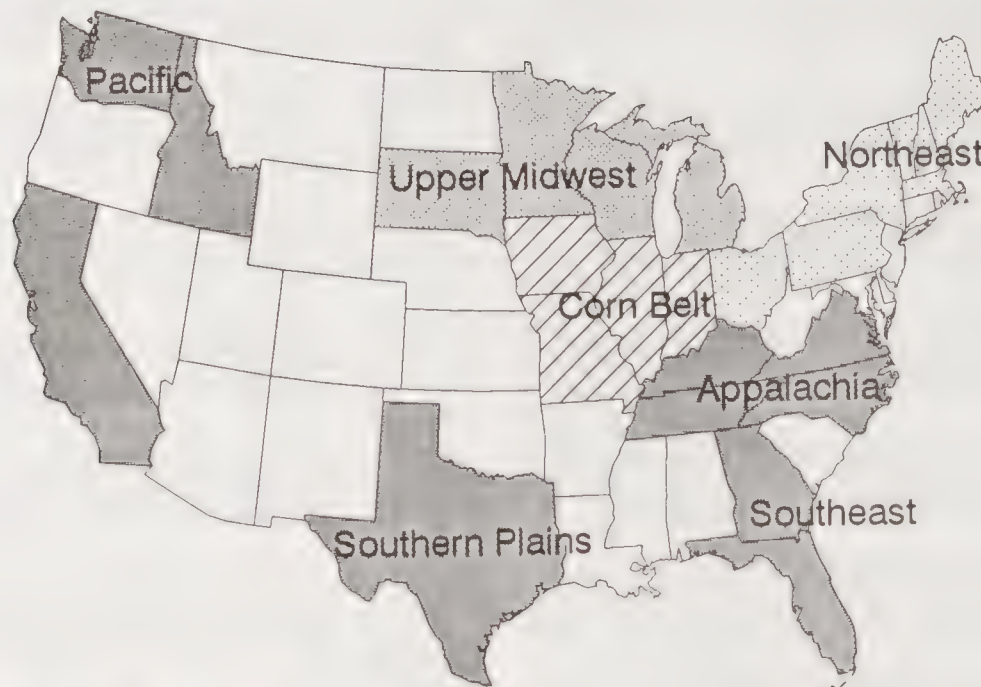
Table 42B--Cotton production economic costs and returns, Southwest, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars per planted acre											
Gross value of production (excluding direct Government payments):											
Cotton	671.15	742.88	678.84	673.69	547.02	876.89	639.70	828.05	841.11	719.53	617.53
Cottonseed	80.88	142.72	104.73	84.43	93.80	101.19	121.05	100.91	131.00	96.11	116.48
Total, gross value of production	752.03	885.60	783.57	758.12	640.82	978.08	760.75	928.96	972.11	815.64	734.01
Economic (full ownership) costs:											
Variable cash expenses	485.25	475.74	474.27	497.86	470.09	510.95	500.55	544.75	549.28	528.49	523.47
General farm overhead	70.98	74.27	76.81	56.39	59.03	57.76	62.61	59.75	69.16	29.58	28.08
Taxes and insurance	20.56	20.18	22.32	22.64	22.23	24.28	24.66	25.85	26.74	43.58	39.49
Capital replacement	67.11	71.74	65.46	67.09	68.46	83.51	88.31	95.16	98.80	67.06	61.59
Operating capital	16.49	12.63	14.05	11.62	11.07	13.17	15.64	19.32	18.27	14.37	9.34
Other nonland capital	10.55	10.26	11.80	11.45	11.43	13.40	16.52	21.74	24.64	24.52	22.45
Land 2/	134.51	154.00	142.27	127.59	98.42	115.37	111.27	126.35	117.41	66.25	61.13
Unpaid labor	19.66	20.40	20.21	21.21	26.95	28.24	28.77	30.62	30.79	47.44	48.79
Total, economic costs	825.10	839.21	827.19	815.84	767.68	846.68	848.33	923.54	935.09	821.29	794.14
Residual returns to management and risk	-73.07	46.39	-43.62	-57.72	-126.86	131.40	-87.58	5.42	37.02	-5.65	-60.13
Harvest-period price (dollars/lb.)	0.63	0.72	0.65	0.59	0.49	0.69	0.62	0.70	0.74	0.68	0.57
Yield (lbs./planted acre)	1,073.72	1,028.17	1,044.56	1,146.77	1,112.37	1,269.99	1,031.77	1,182.93	1,136.63	1,058.13	1,083.39

1/ Cost of custom operations and purchased irrigation water. 2/ Land costs on land basis.

Figure 24

Milk Production Regions

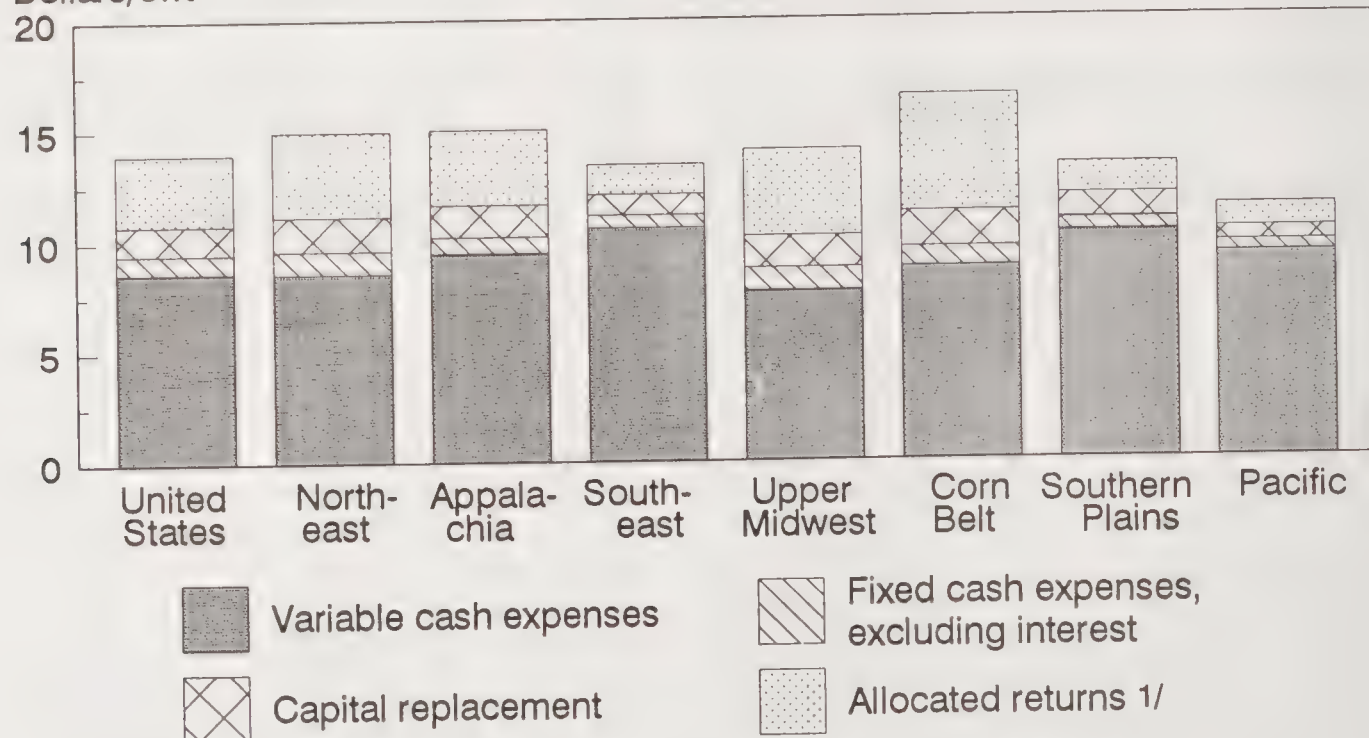


Producers in the States shaded were surveyed about production practices and costs of production. Production regions for each commodity are based on common cultural practices.

Figure 24

Milk production economic costs per cwt, 1992

Dollars/cwt



1/ Income foregone by allocating resources owned by the operation (operating and other nonland capital, land, and unpaid labor) to milk production rather than some other income-producing use.

Table 43A--U.S. milk production cash costs and returns, per cwt, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars											
Gross value of production:											
Milk	13.52	13.50	13.38	12.69	12.46	12.48	12.20	13.53	13.70	12.24	13.15
Cattle	1.14	1.09	1.07	1.06	1.01	1.17	1.24	1.35	1.43	1.36	1.27
Other income 1/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.14	0.14	0.16
Total, gross value of production	14.66	14.59	14.45	13.74	13.47	13.65	13.44	15.01	15.27	13.73	14.58
Cash expenses:											
Feed--											
Concentrates	3.28	3.43	3.47	3.35	3.19	3.06	3.42	3.75	3.68	3.66	3.43
By-products				0.21	0.20	0.18	0.22	0.27	0.28	0.29	0.29
Hay	0.86	0.85	0.82	1.10	1.04	0.99	1.37	1.24	1.18	1.04	1.06
Silage	0.54	0.56	0.58	0.58	0.57	0.53	0.82	0.93	0.86	0.86	0.81
Pasture and other forage	0.04	0.04	0.04	0.06	0.06	0.06	0.07	0.09	0.09	0.09	0.09
Other--											
Milk hauling and marketing	0.45	0.44	0.45	0.58	0.55	0.61	0.61	0.56	0.58	0.57	0.59
Artificial insemination	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.13
Veterinary and medicine	0.20	0.21	0.22	0.20	0.20	0.20	0.20	0.21	0.21	0.20	0.23
Livestock hauling	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02
Fuel, lube, and electricity	0.40	0.37	0.33	0.32	0.22	0.23	0.22	0.27	0.29	0.29	0.28
Machinery and building repairs	0.37	0.37	0.37	0.40	0.39	0.38	0.38	0.50	0.54	0.48	0.49
Hired labor	0.87	0.85	0.91	0.69	0.68	0.68	0.69	0.71	0.72	0.75	0.77
DHIA fees	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Dairy supplies	0.19	0.19	0.19	0.21	0.19	0.19	0.20	0.21	0.21	0.21	0.20
Dairy assessment	0.00	0.48	0.50	0.13	0.36	0.19	0.03	0.00	0.01	0.05	0.13
Other variable cash expenses 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.07	0.07	0.06
Total, variable cash expenses	7.39	7.98	8.07	8.04	7.86	7.51	8.44	9.00	8.92	8.76	8.64
General farm overhead	0.60	0.50	0.60	0.53	0.59	0.70	0.81	0.44	0.53	0.48	0.45
Taxes and insurance	0.35	0.36	0.34	0.37	0.35	0.35	0.39	0.39	0.37	0.39	0.39
Interest	1.56	1.55	1.63	1.41	1.23	1.03	1.02	0.77	0.83	0.78	0.66
Total, fixed cash expenses	2.51	2.41	2.57	2.31	2.17	2.08	2.22	1.60	1.73	1.65	1.50
Total, cash expenses	9.90	10.39	10.64	10.35	10.03	9.59	10.66	10.60	10.65	10.41	10.14
Gross value of production less cash expenses	4.76	4.20	3.80	3.39	3.43	4.06	2.78	4.41	4.62	3.32	4.44

Table 43B--U.S. milk production economic costs and returns, per cwt, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars											
Gross value of production:											
Milk	13.52	13.50	13.38	12.69	12.46	12.48	12.20	13.53	13.70	12.24	13.15
Cattle	1.14	1.09	1.07	1.06	1.01	1.17	1.24	1.35	1.43	1.36	1.27
Other income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.14	0.14	0.16
Total, gross value of production	14.66	14.59	14.45	13.74	13.47	13.65	13.44	15.01	15.27	13.73	14.58
Economic (full ownership) costs:											
Variable cash expenses	7.39	7.98	8.07	8.04	7.86	7.51	8.44	9.00	8.92	8.76	8.64
General farm overhead	0.60	0.50	0.60	0.53	0.59	0.70	0.81	0.44	0.53	0.48	0.45
Taxes and insurance	0.35	0.36	0.34	0.37	0.35	0.35	0.39	0.39	0.37	0.39	0.39
Capital replacement	1.57	1.56	1.54	1.66	1.60	1.55	1.67	1.48	1.70	1.35	1.29
Operating capital	0.12	0.12	0.12	0.08	0.05	0.06	0.08	0.09	0.08	0.06	0.04
Other nonland capital	1.04	0.99	0.93	0.53	0.51	0.57	0.65	0.77	0.97	0.86	0.87
Land	0.36	0.36	0.36	0.17	0.14	0.13	0.17	0.42	0.39	0.40	0.38
Unpaid labor	1.51	1.46	1.55	1.68	1.66	1.65	1.67	1.72	1.77	1.84	1.88
Total, economic costs	12.94	13.32	13.52	13.07	12.76	12.52	13.88	14.31	14.73	14.14	13.94
Residual returns to management and risk	1.72	1.27	0.93	0.68	0.71	1.13	-0.44	0.70	0.54	-0.41	0.64

See footnotes at end of Table 50B.

Table 44A--Milk production cash costs and returns, per cwt, Northeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
	Dollars										
Gross value of production:											
Milk	13.89	13.88	13.74	12.99	12.77	12.93	12.63	14.17	14.60	12.83	13.78
Cattle	1.10	1.03	1.01	0.99	0.95	1.10	1.16	1.24	1.33	1.27	1.16
Other income 1/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.11	0.10	0.13
Total, gross value of production	14.99	14.91	14.75	13.98	13.72	14.03	13.79	15.50	16.04	14.20	15.07
Cash expenses:											
Feed--											
Concentrates	3.40	3.47	3.53	3.10	2.97	2.93	3.30	3.89	3.73	3.72	3.60
By-products				0.11	0.11	0.10	0.11	0.08	0.07	0.07	0.07
Hay	0.63	0.52	0.50	0.64	0.63	0.62	0.71	0.85	0.88	0.91	0.83
Silage	0.60	0.63	0.64	0.63	0.61	0.56	0.70	1.01	0.93	1.15	0.94
Pasture and other forage	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.11	0.11	0.11	0.11
Other--											
Milk hauling and marketing	0.49	0.48	0.50	0.70	0.71	0.78	0.78	0.62	0.64	0.63	0.64
Artificial insemination	0.13	0.13	0.14	0.17	0.17	0.17	0.17	0.15	0.15	0.14	0.16
Veterinary and medicine	0.23	0.24	0.25	0.23	0.23	0.23	0.23	0.22	0.22	0.21	0.24
Livestock hauling	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
Fuel, tube, and electricity	0.40	0.39	0.35	0.36	0.26	0.26	0.25	0.28	0.31	0.32	0.29
Machinery and building repairs	0.35	0.35	0.35	0.40	0.38	0.38	0.38	0.61	0.61	0.59	0.60
Hired labor	1.05	1.04	1.13	0.66	0.70	0.69	0.72	0.50	0.52	0.55	0.55
DHIA fees	0.05	0.05	0.06	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Dairy supplies	0.18	0.18	0.19	0.21	0.20	0.19	0.20	0.22	0.23	0.23	0.22
Dairy assessment	0.00	0.48	0.50	0.13	0.36	0.19	0.03	0.00	0.01	0.05	0.13
Other variable cash expenses 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.11	0.10	0.08
Total, variable cash expenses	7.56	8.01	8.19	7.47	7.45	7.22	7.71	8.72	8.61	8.87	8.55
General farm overhead	0.55	0.51	0.63	0.59	0.64	0.85	0.89	0.49	0.61	0.55	0.51
Taxes and insurance	0.32	0.34	0.33	0.41	0.39	0.39	0.40	0.53	0.51	0.53	0.53
Interest	1.10	1.09	1.12	0.97	0.91	0.91	0.92	0.77	0.83	0.78	0.65
Total, fixed cash expenses	1.97	1.94	2.08	1.97	1.94	2.15	2.21	1.79	1.95	1.86	1.69
Total, cash expenses	9.53	9.95	10.27	9.44	9.39	9.37	9.92	10.51	10.56	10.73	10.24
Gross value of production less cash expenses	5.46	4.96	4.48	4.55	4.33	4.66	3.87	4.99	5.48	3.47	4.83

Table 44B--Milk production economic costs and returns, per cwt, Northeast, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
	Dollars										
Gross value of production:											
Milk	13.89	13.88	13.74	12.99	12.77	12.93	12.63	14.17	14.60	12.83	13.78
Cattle	1.10	1.03	1.01	0.99	0.95	1.10	1.16	1.24	1.33	1.27	1.16
Other income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.11	0.10	0.13
Total, gross value of production	14.99	14.91	14.75	13.98	13.72	14.03	13.79	15.50	16.04	14.20	15.07
Economic (full ownership) costs:											
Variable cash expenses	7.56	8.01	8.19	7.47	7.45	7.22	7.71	8.72	8.61	8.87	8.55
General farm overhead	0.55	0.51	0.63	0.59	0.64	0.85	0.89	0.49	0.61	0.55	0.51
Taxes and insurance	0.32	0.34	0.33	0.41	0.39	0.39	0.40	0.53	0.51	0.53	0.53
Capital replacement	1.58	1.60	1.60	1.84	1.77	1.73	1.78	1.76	2.06	1.63	1.54
Operating capital	0.13	0.12	0.12	0.07	0.05	0.06	0.07	0.09	0.08	0.06	0.04
Other nonland capital	1.07	1.02	0.97	0.55	0.54	0.60	0.71	0.95	1.21	1.07	1.07
Land	0.27	0.28	0.28	0.19	0.16	0.19	0.25	0.45	0.40	0.41	0.39
Unpaid labor	1.59	1.58	1.69	1.86	1.89	1.82	2.00	2.14	2.20	2.36	2.34
Total, economic costs	13.07	13.46	13.81	12.98	12.89	12.85	13.81	15.13	15.68	15.48	14.97
Residual returns to management and risk	1.92	1.45	0.94	1.00	0.83	1.18	-0.02	0.37	0.36	-1.28	0.10

See footnotes at end of Table 50B.

Table 45A--Milk production cash costs and returns, per cwt, Appalachia, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars											
Gross value of production:											
Milk	13.92	13.94	13.98	13.48	13.10	13.51	13.25	14.07	14.80	13.00	14.13
Cattle	0.95	0.94	0.92	0.71	0.64	0.77	0.81	1.31	1.38	1.30	1.23
Other income 1/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.18	0.18	0.20
Total, gross value of production	14.87	14.88	14.90	14.19	13.74	14.28	14.06	15.54	16.36	14.48	15.56
Cash expenses:											
Feed--											
Concentrates	4.10	4.39	4.44	3.74	3.60	3.55	4.08	4.15	4.13	3.99	3.82
By-products				0.18	0.17	0.18	0.18	0.29	0.29	0.29	0.28
Hay	0.67	0.74	0.68	0.68	0.75	0.69	0.79	0.78	0.76	0.72	0.68
Silage	0.66	0.68	0.77	0.68	0.78	0.71	0.82	0.89	0.93	0.93	0.85
Pasture and other forage	0.15	0.14	0.15	0.08	0.08	0.08	0.08	0.10	0.10	0.10	0.09
Other--											
Milk hauling and marketing	0.61	0.61	0.61	0.60	0.59	0.59	0.62	0.80	0.82	0.82	0.79
Artificial insemination	0.12	0.12	0.13	0.08	0.08	0.08	0.13	0.13	0.13	0.12	0.14
Veterinary and medicine	0.17	0.17	0.18	0.15	0.15	0.15	0.15	0.23	0.23	0.21	0.25
Livestock hauling	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.01
Fuel, lube, and electricity	0.40	0.37	0.33	0.25	0.17	0.19	0.18	0.31	0.35	0.34	0.32
Machinery and building repairs	0.32	0.32	0.33	0.31	0.28	0.28	0.29	0.43	0.43	0.41	0.43
Hired labor	1.06	1.13	1.20	1.09	1.07	1.09	1.13	1.20	1.21	1.31	1.31
DHIA fees	0.05	0.06	0.06	0.05	0.04	0.04	0.04	0.06	0.06	0.06	0.06
Dairy supplies	0.24	0.25	0.26	0.21	0.19	0.19	0.20	0.27	0.27	0.27	0.26
Dairy assessment	0.00	0.48	0.50	0.13	0.36	0.19	0.03	0.00	0.01	0.05	0.13
Other variable cash expenses 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.06	0.05	0.05
Total, variable cash expenses	8.56	9.47	9.65	8.25	8.33	8.03	8.69	9.71	9.79	9.69	9.47
General farm overhead	0.55	0.41	0.58	0.44	0.50	0.69	0.79	0.40	0.49	0.44	0.42
Taxes and insurance	0.29	0.32	0.26	0.37	0.38	0.36	0.37	0.30	0.29	0.30	0.31
Interest	1.13	1.13	1.22	1.39	0.96	1.10	0.73	0.56	0.61	0.57	0.48
Total, fixed cash expenses	1.97	1.86	2.06	2.20	1.84	2.15	1.89	1.26	1.39	1.31	1.21
Total, cash expenses	10.53	11.33	11.71	10.45	10.17	10.18	10.58	10.97	11.18	11.00	10.68
Gross value of production less cash expenses	4.34	3.55	3.19	3.74	3.57	4.10	3.48	4.57	5.18	3.48	4.88

Table 45B--Milk production economic costs and returns, per cwt, Appalachia, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars											
Gross value of production:											
Milk	13.92	13.94	13.98	13.48	13.10	13.51	13.25	14.07	14.80	13.00	14.13
Cattle	0.95	0.94	0.92	0.71	0.64	0.77	0.81	1.31	1.38	1.30	1.23
Other income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.18	0.18	0.20
Total, gross value of production	14.87	14.88	14.90	14.19	13.74	14.28	14.06	15.54	16.36	14.48	15.56
Economic (full ownership) costs:											
Variable cash expenses	8.56	9.47	9.65	8.25	8.33	8.03	8.69	9.71	9.79	9.69	9.47
General farm overhead	0.55	0.41	0.58	0.44	0.50	0.69	0.79	0.40	0.49	0.44	0.42
Taxes and insurance	0.29	0.32	0.26	0.37	0.38	0.36	0.37	0.30	0.29	0.30	0.31
Capital replacement	1.43	1.46	1.45	1.50	1.46	1.43	1.47	1.63	1.90	1.50	1.45
Operating capital	0.13	0.14	0.13	0.08	0.06	0.06	0.08	0.10	0.09	0.07	0.04
Other nonland capital	0.95	0.96	0.90	0.51	0.50	0.56	0.67	0.77	0.97	0.85	0.88
Land	0.44	0.50	0.47	0.35	0.33	0.30	0.34	0.64	0.57	0.61	0.56
Unpaid labor	1.09	1.19	1.26	1.69	1.67	1.72	1.78	1.74	1.76	1.90	1.90
Total, economic costs	13.44	14.45	14.70	13.20	13.22	13.15	14.19	15.29	15.86	15.36	15.03
Residual returns to management and risk	1.43	0.43	0.20	0.99	0.52	1.13	-0.13	0.25	0.50	-0.88	0.53

See footnotes at end of Table 50B.

Table 46A--Milk production cash costs and returns, per cwt, Southeast, 1985-92

Item	1985	1986	1987	1988	1989	1990	1991	1992
Dollars								
Gross value of production:								
Milk	15.51	15.30	15.11	15.27	15.59	16.50	14.46	15.42
Cattle	1.05	0.98	1.17	1.31	1.15	1.18	1.13	0.99
Other income 1/	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.07
Total, gross value of production	16.57	16.28	16.28	16.58	16.77	17.71	15.62	16.48
Cash expenses:								
Feed--								
Concentrates	6.29	5.43	4.86	5.85	7.29	6.98	7.27	5.73
By-products	0.42	0.38	0.41	0.41	0.40	0.38	0.37	0.35
Hay	0.62	0.66	0.54	0.56	0.77	0.80	0.48	0.62
Silage	0.40	0.45	0.34	0.44	0.53	0.53	0.32	0.30
Pasture and other forage	0.14	0.15	0.12	0.13	0.11	0.13	0.09	0.09
Other--								
Milk hauling and marketing	0.77	0.82	0.84	0.81	0.73	0.75	0.68	0.62
Artificial insemination	0.07	0.06	0.06	0.06	0.09	0.09	0.08	0.09
Veterinary and medicine	0.16	0.16	0.16	0.16	0.20	0.20	0.19	0.21
Livestock hauling	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Fuel, lube, and electricity	0.21	0.15	0.17	0.17	0.30	0.34	0.33	0.31
Machinery and building repairs	0.22	0.20	0.20	0.21	0.31	0.30	0.29	0.30
Hired labor	1.43	1.49	1.54	1.60	1.60	1.60	1.68	1.60
DHIA fees	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Dairy supplies	0.20	0.19	0.19	0.20	0.19	0.19	0.19	0.18
Dairy assessment	0.13	0.36	0.19	0.03	0.00	0.01	0.05	0.13
Other variable cash expenses 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total, variable cash expenses	11.11	10.54	9.66	10.67	12.56	12.34	12.06	10.57
General farm overhead	0.22	0.24	0.29	0.35	0.28	0.33	0.31	0.28
Taxes and insurance	0.25	0.25	0.25	0.26	0.28	0.26	0.28	0.28
Interest	1.16	1.17	0.68	0.52	0.63	0.66	0.63	0.52
Total, fixed cash expenses	1.63	1.66	1.22	1.13	1.19	1.25	1.22	1.08
Total, cash expenses	12.74	12.20	10.88	11.80	13.75	13.59	13.28	11.65
Gross value of production less cash expenses	3.83	4.09	5.40	4.78	3.02	4.12	2.34	4.83

Table 46B--Milk production economic costs and returns, per cwt, Southeast, 1985-92

Item	1985	1986	1987	1988	1989	1990	1991	1992
Dollars								
Gross value of production:								
Milk	15.51	15.30	15.11	15.27	15.59	16.50	14.46	15.42
Cattle	1.05	0.98	1.17	1.31	1.15	1.18	1.13	0.99
Other income	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.07
Total, gross value of production	16.57	16.28	16.28	16.58	16.77	17.71	15.62	16.48
Economic (full ownership) costs:								
Variable cash expenses	11.11	10.54	9.66	10.67	12.56	12.34	12.06	10.57
General farm overhead	0.22	0.24	0.29	0.35	0.28	0.33	0.31	0.28
Taxes and insurance	0.25	0.25	0.25	0.26	0.28	0.26	0.28	0.28
Capital replacement	0.90	0.87	0.84	0.88	1.12	1.27	1.02	0.95
Operating capital	0.11	0.08	0.10	0.10	0.13	0.12	0.08	0.05
Other nonland capital	0.35	0.34	0.38	0.47	0.36	0.45	0.40	0.40
Land	0.12	0.14	0.11	0.13	0.33	0.30	0.31	0.26
Unpaid labor	0.57	0.59	0.61	0.64	0.61	0.62	0.65	0.62
Total, economic costs	13.64	13.05	12.22	13.50	15.67	15.69	15.11	13.41
Residual returns to management and risk	2.93	3.23	4.06	3.08	1.10	2.02	0.51	3.07

See footnotes at end of Table 50B.
Note: Regions were redefined so that results for the Southeast are available from 1985.

Table 47A--Milk production cash costs and returns, per cwt, Upper Midwest, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars											
Gross value of production:											
Milk	13.19	13.18	13.07	12.25	12.11	12.11	11.92	13.35	13.50	12.04	13.11
Cattle	1.37	1.30	1.28	1.15	1.12	1.29	1.34	1.61	1.73	1.63	1.56
Other income 1/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.18	0.17	0.19
Total, gross value of production	14.56	14.48	14.35	13.40	13.23	13.40	13.26	15.11	15.41	13.84	14.86
Cash expenses:											
Feed--											
Concentrates	2.75	2.90	2.96	2.88	2.81	2.76	2.99	3.12	3.13	3.14	2.85
By-products	0.55	0.53	0.53	0.98	0.14	0.12	0.15	0.08	0.08	0.08	0.08
Hay	0.63	0.62	0.65	0.76	0.97	0.95	1.58	1.30	1.20	0.96	1.07
Silage	0.02	0.02	0.02	0.05	0.74	0.70	1.34	1.20	1.05	0.99	1.05
Pasture and other forage					0.06	0.05	0.08	0.04	0.03	0.04	0.04
Other--											
Milk hauling and marketing	0.31	0.31	0.31	0.47	0.42	0.54	0.55	0.44	0.46	0.47	0.47
Artificial insemination	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.14	0.13	0.13	0.15
Veterinary and medicine	0.22	0.23	0.24	0.19	0.19	0.19	0.19	0.24	0.24	0.22	0.25
Livestock hauling	0.03	0.03	0.03	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03
Fuel, tube, and electricity	0.43	0.40	0.36	0.34	0.23	0.24	0.22	0.23	0.25	0.25	0.23
Machinery and building repairs	0.39	0.39	0.38	0.46	0.44	0.43	0.43	0.56	0.55	0.54	0.56
Hired labor	0.67	0.61	0.67	0.62	0.65	0.65	0.65	0.42	0.46	0.46	0.49
DHIA fees	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05
Dairy supplies	0.17	0.17	0.18	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Dairy assessment	0.00	0.48	0.50	0.13	0.36	0.19	0.03	0.00	0.01	0.05	0.13
Other variable cash expenses 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.06	0.05	0.05
Total, variable cash expenses	6.33	6.85	7.00	7.45	7.42	7.23	8.62	8.09	7.92	7.65	7.69
General farm overhead	0.72	0.62	0.69	0.62	0.78	0.78	0.95	0.54	0.66	0.60	0.57
Taxes and insurance	0.40	0.38	0.42	0.42	0.40	0.40	0.48	0.45	0.43	0.45	0.46
Interest	1.95	1.94	2.11	1.93	1.57	1.35	1.19	0.92	0.99	0.93	0.79
Total, fixed cash expenses	3.07	2.94	3.22	2.97	2.75	2.53	2.62	1.91	2.08	1.98	1.82
Total, cash expenses	9.40	9.79	10.22	10.42	10.17	9.76	11.24	10.00	10.00	9.63	9.51
Gross value of production less cash expenses	5.16	4.69	4.13	2.98	3.06	3.64	2.02	5.11	5.41	4.21	5.35

Table 47B--Milk production economic costs and returns, per cwt, Upper Midwest, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars											
Gross value of production:											
Milk	13.19	13.18	13.07	12.25	12.11	12.11	11.92	13.35	13.50	12.04	13.11
Cattle	1.37	1.30	1.28	1.15	1.12	1.29	1.34	1.61	1.73	1.63	1.56
Other income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.18	0.17	0.19
Total, gross value of production	14.56	14.48	14.35	13.40	13.23	13.40	13.26	15.11	15.41	13.84	14.86
Economic (full ownership) costs:											
Variable cash expenses	6.33	6.85	7.00	7.45	7.42	7.23	8.62	8.09	7.92	7.65	7.69
General farm overhead	0.72	0.62	0.69	0.62	0.78	0.78	0.95	0.54	0.66	0.60	0.57
Taxes and insurance	0.40	0.38	0.42	0.42	0.40	0.40	0.48	0.45	0.43	0.45	0.46
Capital replacement	1.86	1.84	1.83	2.10	2.04	1.98	2.21	1.64	1.91	1.51	1.45
Operating capital	0.11	0.11	0.11	0.07	0.05	0.05	0.07	0.08	0.07	0.05	0.03
Other nonland capital	1.19	1.10	1.07	0.62	0.61	0.68	0.84	0.98	1.24	1.10	1.13
Land	0.43	0.44	0.43	0.15	0.10	0.09	0.16	0.36	0.36	0.37	0.34
Unpaid labor	1.97	1.79	1.96	1.98	2.06	2.08	2.08	2.06	2.23	2.26	2.38
Total, economic costs	13.01	13.13	13.51	13.41	13.46	13.29	15.42	14.20	14.82	13.99	14.05
Residual returns to management and risk	1.55	1.35	0.84	-0.01	-0.22	0.11	-2.16	0.91	0.59	-0.15	0.81

See footnotes at end of Table 50B.

Table 48A--Milk production cash costs and returns, per cwt, Corn Belt, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars											
Gross value of production:											
Milk	13.37	13.37	13.29	12.53	12.32	12.44	12.11	13.37	13.40	12.01	13.21
Cattle	1.08	1.04	1.00	1.35	1.29	1.43	1.47	1.60	1.67	1.62	1.53
Other income 1/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.14	0.14	0.17
Total, gross value of production	14.45	14.41	14.29	13.88	13.61	13.87	13.58	15.09	15.21	13.77	14.91
Cash expenses:											
Feed--											
Concentrates	3.45	3.84	3.80	4.23	3.91	3.68	4.06	4.25	4.18	4.17	4.01
By-products				0.16	0.17	0.16	0.11	0.11	0.11	0.11	0.11
Hay	0.56	0.64	0.58	0.68	0.64	0.60	0.90	1.14	1.00	0.96	1.01
Silage	0.49	0.54	0.52	0.38	0.36	0.32	0.56	0.52	0.46	0.50	0.47
Pasture and other forage	0.06	0.06	0.06	0.08	0.08	0.07	0.08	0.14	0.12	0.13	0.13
Other--											
Milk hauling and marketing	0.57	0.57	0.58	0.63	0.55	0.60	0.59	0.64	0.66	0.64	0.62
Artificial insemination	0.13	0.13	0.13	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.12
Veterinary and medicine	0.21	0.21	0.22	0.30	0.30	0.30	0.29	0.27	0.26	0.25	0.30
Livestock hauling	0.01	0.01	0.01	0.05	0.05	0.05	0.05	0.02	0.01	0.01	0.01
Fuel, lube, and electricity	0.53	0.49	0.43	0.36	0.25	0.26	0.25	0.37	0.41	0.41	0.39
Machinery and building repairs	0.44	0.44	0.43	0.45	0.43	0.41	0.41	0.50	0.48	0.48	0.51
Hired labor	0.65	0.66	0.69	0.59	0.61	0.61	0.61	0.51	0.51	0.55	0.57
DHIA fees	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.06	0.06	0.07	0.07
Dairy supplies	0.20	0.20	0.21	0.21	0.20	0.19	0.20	0.23	0.23	0.23	0.23
Dairy assessment	0.00	0.48	0.50	0.13	0.36	0.19	0.03	0.00	0.01	0.05	0.13
Other variable cash expenses 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.06	0.06	0.05
Total, variable cash expenses	7.36	8.33	8.22	8.42	8.07	7.60	8.37	8.92	8.67	8.72	8.73
General farm overhead	0.66	0.45	0.59	0.56	0.51	0.58	0.58	0.45	0.54	0.50	0.47
Taxes and insurance	0.36	0.40	0.38	0.38	0.37	0.38	0.42	0.38	0.36	0.38	0.40
Interest	1.71	1.70	1.82	1.30	1.69	1.27	1.67	0.89	0.94	0.90	0.77
Total, fixed cash expenses	2.73	2.55	2.79	2.24	2.57	2.23	2.67	1.72	1.84	1.78	1.64
Total, cash expenses	10.09	10.88	11.01	10.66	10.64	9.83	11.04	10.64	10.51	10.50	10.37
Gross value of production less cash expenses	4.36	3.53	3.28	3.22	2.97	4.04	2.54	4.45	4.70	3.27	4.54

Table 48B--Milk production economic costs and returns, per cwt, Corn Belt, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars											
Gross value of production:											
Milk	13.37	13.37	13.29	12.53	12.32	12.44	12.11	13.37	13.40	12.01	13.21
Cattle	1.08	1.04	1.00	1.35	1.29	1.43	1.47	1.60	1.67	1.62	1.53
Other income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.14	0.14	0.17
Total, gross value of production	14.45	14.41	14.29	13.88	13.61	13.87	13.58	15.09	15.21	13.77	14.91
Economic (full ownership) costs:											
Variable cash expenses	7.36	8.33	8.22	8.42	8.07	7.60	8.37	8.92	8.67	8.72	8.73
General farm overhead	0.66	0.45	0.59	0.56	0.51	0.58	0.58	0.45	0.54	0.50	0.47
Taxes and insurance	0.36	0.40	0.38	0.38	0.37	0.38	0.42	0.38	0.36	0.38	0.40
Capital replacement	1.80	1.86	1.81	1.88	1.81	1.80	1.92	1.79	2.05	1.67	1.61
Operating capital	0.13	0.13	0.12	0.08	0.06	0.06	0.07	0.09	0.08	0.06	0.04
Other nonland capital	1.17	1.14	1.06	0.59	0.58	0.65	0.78	0.92	1.14	1.04	1.07
Land	0.59	0.69	0.56	0.21	0.16	0.16	0.26	0.90	0.89	0.91	0.89
Unpaid labor	1.98	1.98	2.04	2.75	2.82	2.82	2.85	2.92	2.87	3.13	3.25
Total, economic costs	14.05	14.98	14.78	14.88	14.36	14.05	15.26	16.37	16.60	16.41	16.46
Residual returns to management and risk	0.40	-0.57	-0.49	-1.00	-0.75	-0.18	-1.68	-1.28	-1.39	-2.64	-1.55

See footnotes at end of Table 50B.

Table 49A--Milk production cash costs and returns, per cwt, Southern Plains, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars											
Gross value of production:											
Milk	14.60	14.50	14.30	13.80	13.60	13.70	13.20	14.30	14.70	12.70	13.70
Cattle	0.93	0.90	0.84	1.15	1.10	1.28	1.37	1.33	1.35	1.32	1.20
Other income 1/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.05	0.05	0.08
Total, gross value of production	15.53	15.40	15.14	14.95	14.70	14.98	14.57	15.67	16.10	14.07	14.98
Cash expenses:											
Feed--											
Concentrates	4.64	4.35	4.55	4.91	4.41	3.97	4.66	4.82	4.56	4.89	4.77
By-products				0.13	0.14	0.13	0.13	0.79	0.76	0.75	0.73
Hay	1.68	1.88	2.39	1.98	1.64	1.60	2.01	1.51	1.46	1.30	1.18
Silage	0.15	0.16	0.20	1.11	0.12	0.10	0.14	0.55	0.51	0.43	0.40
Pasture and other forage	0.04	0.04	0.04	0.14	0.14	0.12	0.15	0.16	0.14	0.16	0.14
Other--											
Milk hauling and marketing	0.60	0.60	0.62	0.78	0.75	0.72	0.74	0.73	0.75	0.75	0.74
Artificial insemination	0.08	0.08	0.08	0.14	0.13	0.13	0.14	0.04	0.04	0.04	0.04
Veterinary and medicine	0.14	0.14	0.14	0.08	0.08	0.08	0.08	0.17	0.17	0.16	0.18
Livestock hauling	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01
Fuel, lube, and electricity	0.30	0.28	0.24	0.23	0.16	0.17	0.17	0.20	0.22	0.22	0.21
Machinery and building repairs	0.18	0.18	0.17	0.25	0.24	0.23	0.25	0.31	0.29	0.29	0.29
Hired labor	1.21	1.13	1.06	1.30	1.33	1.34	1.35	1.22	1.13	1.17	1.16
DHIA fees	0.02	0.02	0.02	0.07	0.07	0.07	0.07	0.02	0.02	0.03	0.02
Dairy supplies	0.30	0.30	0.30	0.20	0.19	0.19	0.20	0.29	0.28	0.28	0.27
Dairy assessment	0.00	0.48	0.50	0.13	0.36	0.19	0.03	0.00	0.01	0.05	0.13
Other variable cash expenses 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.01
Total, variable cash expenses	9.35	9.65	10.32	10.47	9.78	9.06	10.14	10.84	10.37	10.55	10.28
General farm overhead	0.73	0.44	0.43	0.54	0.47	0.60	0.88	0.29	0.34	0.32	0.29
Taxes and insurance	0.26	0.25	0.22	0.32	0.32	0.32	0.36	0.25	0.23	0.24	0.25
Interest	1.09	1.08	1.32	1.50	0.85	0.62	0.66	0.62	0.63	0.61	0.51
Total, fixed cash expenses	2.08	1.77	1.97	2.36	1.64	1.54	1.90	1.16	1.20	1.17	1.05
Total, cash expenses	11.43	11.42	12.29	12.83	11.42	10.60	12.04	12.00	11.57	11.72	11.33
Gross value of production less cash expenses	4.10	3.98	2.85	2.12	3.28	4.38	2.53	3.67	4.53	2.35	3.65

Table 49B--Milk production economic costs and returns, per cwt, Southern Plains, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars											
Gross value of production:											
Milk	14.60	14.50	14.30	13.80	13.60	13.70	13.20	14.30	14.70	12.70	13.70
Cattle	0.93	0.90	0.84	1.15	1.10	1.28	1.37	1.33	1.35	1.32	1.20
Other income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.05	0.05	0.08
Total, gross value of production	15.53	15.40	15.14	14.95	14.70	14.98	14.57	15.67	16.10	14.07	14.98
Economic (full ownership) costs:											
Variable cash expenses	9.35	9.65	10.32	10.47	9.78	9.06	10.14	10.84	10.37	10.55	10.28
General farm overhead	0.73	0.44	0.43	0.54	0.47	0.60	0.88	0.29	0.34	0.32	0.29
Taxes and insurance	0.26	0.25	0.22	0.32	0.32	0.32	0.36	0.25	0.23	0.24	0.25
Capital replacement	1.23	1.16	1.15	0.99	0.96	0.96	1.05	1.33	1.47	1.20	1.13
Operating capital	0.14	0.12	0.13	0.10	0.07	0.07	0.09	0.11	0.10	0.07	0.05
Other nonland capital	0.71	0.65	0.62	0.38	0.37	0.42	0.53	0.40	0.49	0.44	0.44
Land	0.24	0.21	0.25	0.27	0.21	0.18	0.22	0.08	0.08	0.08	0.07
Unpaid labor	0.79	0.74	0.71	0.84	0.86	0.86	0.87	0.83	0.78	0.80	0.80
Total, economic costs	13.45	13.22	13.83	13.91	13.03	12.44	14.13	14.13	13.86	13.70	13.31
Residual returns to management and risk	2.08	2.18	1.31	1.04	1.68	2.54	0.43	1.54	2.24	0.37	1.67

See footnotes at end of Table 50B.

Table 50A--Milk production cash costs and returns, per cwt, Pacific, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars											
Gross value of production:											
Milk	13.23	13.10	12.89	12.21	11.82	11.56	11.14	12.51	12.20	11.33	11.85
Cattle	0.86	0.85	0.82	0.93	0.87	1.03	1.14	0.98	1.02	0.97	0.93
Other income 1/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.14	0.14	0.15
Total, gross value of production	14.09	13.95	13.71	13.14	12.69	12.59	12.28	13.61	13.36	12.44	12.93
Cash expenses:											
Feed--											
Concentrates	3.33	3.48	3.46	3.13	2.97	2.74	2.99	3.45	3.45	3.31	3.13
By-products				0.57	0.51	0.45	0.59	0.77	0.80	0.83	0.83
Hay	2.21	2.43	2.19	2.62	2.24	2.08	2.55	1.81	1.84	1.46	1.46
Silage	0.28	0.27	0.27	0.33	0.29	0.26	0.31	0.76	0.77	0.63	0.61
Pasture and other forage	0.03	0.03	0.03	0.07	0.06	0.05	0.05	0.12	0.14	0.12	0.11
Other--											
Milk hauling and marketing	0.46	0.46	0.47	0.50	0.44	0.42	0.42	0.51	0.53	0.52	0.62
Artificial insemination	0.11	0.11	0.11	0.09	0.08	0.08	0.09	0.10	0.10	0.10	0.11
Veterinary and medicine	0.14	0.14	0.14	0.17	0.17	0.16	0.17	0.14	0.13	0.13	0.15
Livestock hauling	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.02
Fuel, lube, and electricity	0.23	0.18	0.18	0.21	0.16	0.16	0.17	0.26	0.28	0.28	0.28
Machinery and building repairs	0.41	0.39	0.39	0.37	0.35	0.34	0.37	0.37	0.35	0.35	0.37
Hired labor	0.95	0.96	1.02	1.02	1.02	1.03	1.08	1.12	1.08	1.11	1.15
DHIA fees	0.05	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dairy supplies	0.18	0.18	0.18	0.19	0.18	0.18	0.19	0.17	0.17	0.17	0.16
Dairy assessment	0.00	0.48	0.13	0.13	0.36	0.19	0.03	0.00	0.01	0.05	0.13
Other variable cash expenses 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.08	0.08	0.07
Total, variable cash expenses	8.39	9.24	9.01	9.46	8.89	8.20	9.07	9.72	9.79	9.21	9.25
General farm overhead	0.36	0.30	0.38	0.32	0.24	0.40	0.50	0.25	0.30	0.28	0.26
Taxes and insurance	0.15	0.16	0.14	0.18	0.17	0.17	0.19	0.21	0.19	0.21	0.21
Interest	1.18	1.17	1.01	1.03	0.86	0.47	0.69	0.60	0.64	0.61	0.52
Total, fixed cash expenses	1.69	1.63	1.53	1.53	1.27	1.05	1.38	1.06	1.13	1.10	0.99
Total, cash expenses	10.08	10.87	10.54	10.99	10.16	9.25	10.45	10.78	10.92	10.31	10.24
Gross value of production less cash expenses	4.01	3.08	3.17	2.16	2.53	3.34	1.84	2.83	2.44	2.13	2.69

Table 50B--Milk production economic costs and returns, per cwt, Pacific, 1982-92

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Dollars											
Gross value of production:											
Milk	13.23	13.10	12.89	12.21	11.82	11.56	11.14	12.51	12.20	11.33	11.85
Cattle	0.86	0.85	0.82	0.93	0.87	1.03	1.14	0.98	1.02	0.97	0.93
Other income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.14	0.14	0.15
Total, gross value of production	14.09	13.95	13.71	13.14	12.69	12.59	12.28	13.61	13.36	12.44	12.93
Economic (full ownership) costs:											
Variable cash expenses	8.39	9.24	9.01	9.46	8.89	8.20	9.07	9.72	9.79	9.21	9.25
General farm overhead	0.36	0.30	0.38	0.32	0.24	0.40	0.50	0.25	0.30	0.28	0.26
Taxes and insurance	0.15	0.16	0.14	0.18	0.17	0.17	0.19	0.21	0.19	0.21	0.21
Capital replacement	0.78	0.79	0.76	0.72	0.67	0.65	0.72	0.74	0.84	0.69	0.66
Operating capital	0.12	0.12	0.12	0.09	0.06	0.06	0.08	0.10	0.09	0.06	0.04
Other nonland capital	0.66	0.62	0.57	0.31	0.30	0.34	0.43	0.29	0.36	0.33	0.33
Land	0.07	0.07	0.05	0.09	0.07	0.06	0.06	0.24	0.23	0.24	0.23
Unpaid labor	0.38	0.39	0.41	0.39	0.39	0.40	0.42	0.42	0.41	0.42	0.43
Total, economic costs	10.91	11.69	11.44	11.56	10.79	10.29	11.46	11.97	12.21	11.44	11.41
Residual returns to management and risk	3.18	2.26	2.27	1.58	1.90	2.30	0.82	1.64	1.15	1.00	1.52

1/ Includes the dairy enterprise share of receipts from cooperative patronage dividends, assessment refunds, renting or leasing of dairy animals, manure sales, and insurance indemnity payments. 2/ Includes the dairy enterprise share of expenses for bedding and litter, and custom manure hauling and disposal.

Note: Survey base changed in 1989.

Figure 26

Cow-Calf Production Regions

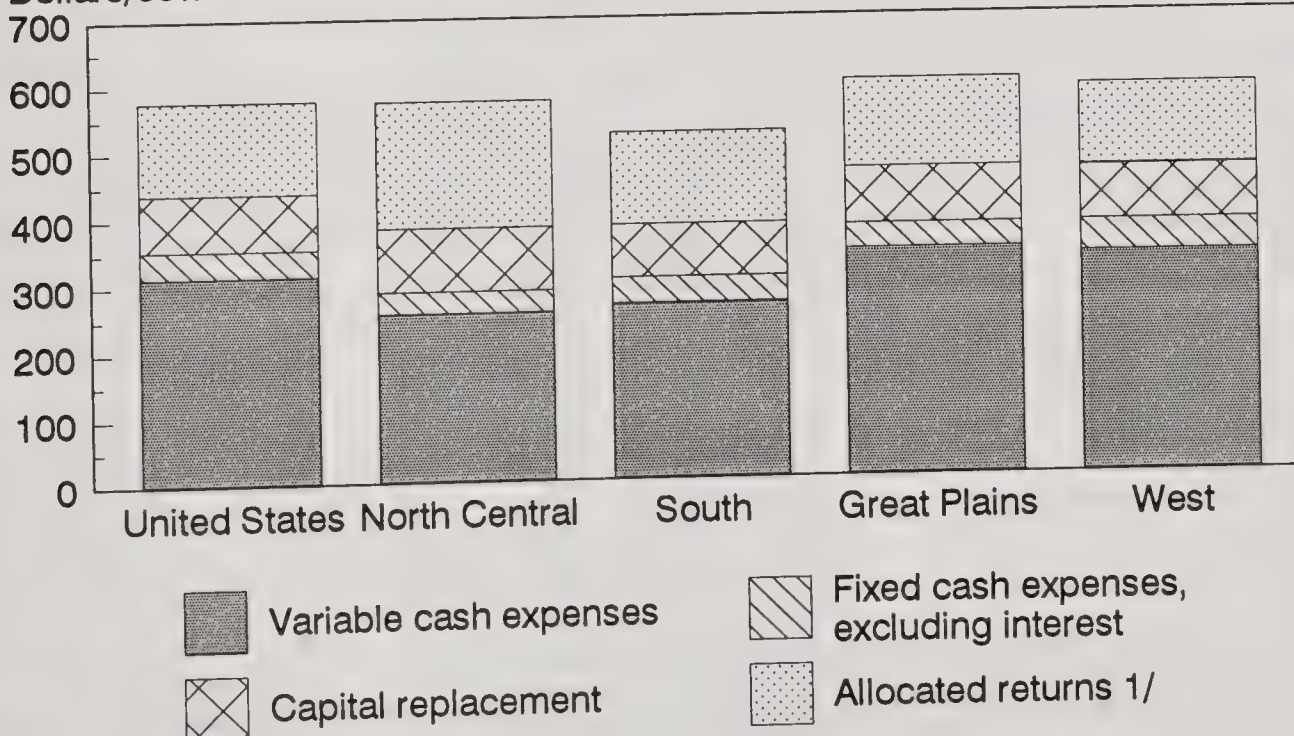


Producers in the States shaded were surveyed about production practices and costs of production. Production regions for each commodity are based on common cultural practices.

Figure 27

Cow-calf production economic costs, 1992

Dollars/cow



1/ Income foregone by allocating resources owned by the operation (operating and other nonland capital, land, and unpaid labor) to cow-calf production rather than some other income-producing use.

Table 51A--U.S. cow-calf production cash costs and returns, 1990-92

Item	1990	1991	1992
Dollars per bred cow			
Gross value of production:			
Steer calves	61.49	63.22	57.26
Heifer calves	51.68	53.24	48.09
Yearling steers	133.46	132.20	127.26
Yearling heifers	72.97	72.17	69.72
Other cattle	121.99	117.40	111.23
Total, gross value of production	441.59	438.23	413.56
Cash expenses:			
Feeder cattle	14.97	14.98	14.12
Feed--			
Grain	7.05	8.10	7.13
Protein supplements	23.80	23.26	23.95
By-products	7.55	7.41	7.53
Harvested forages	77.93	71.77	74.67
Pasture	83.63	83.21	81.00
Total feed costs	199.96	193.75	194.28
Other--			
Veterinary and medicine	11.74	13.72	15.64
Livestock hauling	2.63	3.43	3.39
Marketing	6.66	6.57	3.56
Custom feed mixing	0.34	0.33	0.18
Fuel, lube	22.10	23.40	20.39
Machinery and building repairs	24.20	26.02	27.02
Hired labor	27.97	29.03	30.47
Other variable cash expenses	5.09	5.26	5.47
Total, variable cash expenses	315.66	316.49	314.52
General farm overhead	34.16	27.52	27.87
Taxes and insurance	13.51	11.90	12.09
Interest	38.47	31.98	27.97
Total, fixed cash expenses	86.14	71.40	67.93
Total, cash expenses	401.80	387.89	382.45
Gross value of production less cash expenses	39.79	50.34	31.11

Table 51B--U.S. cow-calf production economic costs and returns, 1990-92

Item	1990	1991	1992
Dollars per bred cow			
Gross value of production:			
Steer calves	61.49	63.22	57.26
Heifer calves	51.68	53.24	48.09
Yearling steers	133.46	132.20	127.26
Yearling heifers	72.97	72.17	69.72
Other cattle	121.99	117.40	111.23
Total, gross value of production	441.59	438.23	413.56
Economic (full ownership) costs:			
Variable cash expenses	315.66	316.49	314.52
General farm overhead	34.16	27.52	27.87
Taxes and insurance	13.51	11.90	12.09
Capital replacement	81.56	83.88	84.65
Operating capital	17.69	12.91	8.42
Other nonland capital	32.27	34.90	37.27
Land	0.04	0.04	0.04
Unpaid labor	83.63	88.20	92.84
Total, economic costs	578.52	575.84	577.70
Residual returns to management and risk	-136.93	-137.61	-164.14

Note: 1990 to 1992 estimates were based on a revised methodology and are not directly comparable with results for previous years.

Table 52A--Cow-calf production cash costs and returns, North Central,
1990-92

Item	1990	1991	1992
Dollars per bred cow			
Gross value of production:			
Steer calves	60.07	61.10	56.79
Heifer calves	34.69	35.10	32.82
Yearling steers	136.56	133.33	128.29
Yearling heifers	89.43	87.60	84.43
Other cattle	98.62	95.47	90.27
Total, gross value of production	419.37	412.60	392.60
Cash expenses:			
Feeder cattle	2.79	2.68	2.60
Feed--			
Grain	10.96	11.57	9.83
Protein supplements	20.33	20.13	20.33
By-products	4.56	4.62	4.84
Harvested forages	63.63	66.60	68.07
Pasture	45.13	47.28	44.87
Total feed costs	144.61	150.20	147.94
Other--			
Veterinary and medicine	15.49	19.08	23.56
Livestock hauling	0.96	1.26	1.25
Marketing	5.94	5.87	3.17
Custom feed mixing	0.08	0.07	0.04
Fuel, lube, electricity	28.38	29.35	25.21
Machinery and building repairs	32.43	34.43	35.44
Hired labor	11.08	11.34	12.20
Other variable cash expenses	4.63	4.76	5.06
Total, variable cash expenses	246.39	259.04	256.47
General farm overhead	28.01	22.62	22.80
Taxes and insurance	11.50	10.16	10.38
Interest	38.06	31.76	27.95
Total, fixed cash expenses	77.57	64.54	61.13
Total, cash expenses	323.96	323.58	317.60
Gross value of production less cash expenses	95.41	89.02	75.00

Table 52B--Cow-calf production economic costs and returns, North Central,
1990-92

Item	1990	1991	1992
Dollars per bred cow			
Gross value of production:			
Steer calves	60.07	61.10	56.79
Heifer calves	34.69	35.10	32.82
Yearling steers	136.56	133.33	128.29
Yearling heifers	89.43	87.60	84.43
Other cattle	98.62	95.47	90.27
Total, gross value of production	419.37	412.60	392.60
Economic (full ownership) costs:			
Variable cash expenses	246.39	259.04	256.47
General farm overhead	28.01	22.62	22.80
Taxes and insurance	11.50	10.16	10.38
Capital replacement	93.08	95.38	95.80
Operating capital	13.80	10.57	6.87
Other nonland capital	41.57	45.18	48.10
Land	0.12	0.12	0.12
Unpaid labor	117.15	126.16	134.99
Total, economic costs	551.62	569.23	575.53
Residual returns to management and risk	-132.25	-156.63	-182.93

Note: 1990 to 1992 estimates were based on a revised methodology
and are not directly comparable with results for previous years.

Table 53A--Cow-calf production cash costs and returns, South, 1990-92

Item	1990	1991	1992
Dollars per bred cow			
Gross value of production:			
Steer calves	85.18	88.91	78.48
Heifer calves	84.76	88.64	78.14
Yearling steers	93.01	95.37	88.80
Yearling heifers	36.36	37.25	34.61
Other cattle	80.62	78.59	72.56
Total, gross value of production	379.93	388.76	352.59
Cash expenses:			
Feeder cattle	20.27	21.26	20.01
Feed--			
Grain	6.05	6.27	5.39
Protein supplements	19.43	18.38	18.54
By-products	14.61	14.48	14.55
Harvested forages	54.18	47.22	45.37
Pasture	54.08	55.33	54.34
Total feed costs	148.35	141.68	138.19
Other--			
Veterinary and medicine	9.77	9.86	9.49
Livestock hauling	3.98	5.20	5.17
Marketing	7.44	7.36	3.97
Custom feed mixing	0.21	0.20	0.11
Fuel, lube, electricity	22.71	23.89	20.85
Machinery and building repairs	23.49	25.44	26.56
Hired labor	32.82	34.95	35.86
Other variable cash expenses	5.97	6.36	6.57
Total, variable cash expenses	275.01	276.20	266.78
General farm overhead	31.97	25.84	26.21
Taxes and insurance	15.10	13.30	13.51
Interest	22.35	18.59	16.17
Total, fixed cash expenses	69.42	57.73	55.89
Total, cash expenses	344.43	333.93	322.67
Gross value of production less cash expenses	35.50	54.83	29.92

Table 53B--Cow-calf production economic costs and returns, South, 1990-1992

Item	1990	1991	1992
Dollars per bred cow			
Gross value of production:			
Steer calves	85.18	88.91	78.48
Heifer calves	84.76	88.64	78.14
Yearling steers	93.01	95.37	88.80
Yearling heifers	36.36	37.25	34.61
Other cattle	80.62	78.59	72.56
Total, gross value of production	379.93	388.76	352.59
Economic (full ownership) costs:			
Variable cash expenses	275.01	276.20	266.78
General farm overhead	31.97	25.84	26.21
Taxes and insurance	15.10	13.30	13.51
Capital replacement	75.11	78.41	79.71
Operating capital	15.41	11.27	7.14
Other nonland capital	29.85	32.80	35.26
Land	0.05	0.06	0.05
Unpaid labor	84.14	92.51	95.53
Total, economic costs	526.64	530.39	524.19
Residual returns to management and risk	-146.71	-141.63	-171.60

Note: 1990 to 1992 estimates were based on a revised methodology and are not directly comparable with results for previous years.

Table 54A--Cow-calf production cash costs and returns, Great Plains,
1990-1992

Item	1990	1991	1992
Dollars per bred cow			
Gross value of production:			
Steer calves	55.57	57.13	51.98
Heifer calves	45.40	46.71	42.45
Yearling steers	143.68	140.22	135.29
Yearling heifers	90.11	88.05	85.28
Other cattle	146.02	139.03	131.22
Total, gross value of production	480.78	471.14	446.22
Cash expenses:			
Feeder cattle	17.42	17.12	16.34
Feed--			
Grain	7.66	9.68	8.38
Protein supplements	30.28	29.67	30.60
By-products	7.20	6.99	7.07
Harvested forages	87.90	79.54	83.15
Pasture	95.89	100.58	90.03
Total feed costs	228.93	226.46	219.23
Other--			
Veterinary and medicine	11.65	16.08	18.10
Livestock hauling	1.87	2.45	2.41
Marketing	7.13	7.05	3.82
Custom feed mixing	0.47	0.46	0.24
Fuel, lube, electricity	23.77	25.41	21.81
Machinery and building repairs	25.41	27.66	28.97
Hired labor	25.19	25.97	27.53
Other variable cash expenses	5.59	5.69	5.97
Total, variable cash expenses	347.43	354.35	344.42
General farm overhead	34.16	27.47	27.82
Taxes and insurance	10.67	9.41	9.55
Interest	32.64	26.99	23.48
Total, fixed cash expenses	77.47	63.87	60.85
Total cash expenses	424.90	418.22	405.27
Gross value of production less cash expenses	55.88	52.92	40.95

Table 54B--Cow-calf production economic costs and returns, Great Plains,
1990-1992

Item	1990	1991	1992
Dollars per bred cow			
Gross value of production:			
Steer calves	55.57	57.13	51.98
Heifer calves	45.40	46.71	42.45
Yearling steers	143.68	140.22	135.29
Yearling heifers	90.11	88.05	85.28
Other cattle	146.02	139.03	131.22
Total, gross value of production	480.78	471.14	446.22
Economic (full ownership) costs:			
Variable cash expenses	347.43	354.35	344.42
General farm overhead	34.16	27.47	27.82
Taxes and insurance	10.67	9.41	9.55
Capital replacement	80.89	84.13	85.37
Operating capital	19.47	14.46	9.22
Other nonland capital	31.73	34.37	36.92
Land	0.02	0.02	0.02
Unpaid labor	79.28	81.56	86.57
Total, economic costs	603.65	605.77	599.89
Residual returns to management and risk	-122.87	-134.63	-153.67

Note: 1990 to 1992 estimates were based on a revised methodology
and are not directly comparable with results for previous years.

Table 55A--Cow-calf production cash costs and returns, West, 1990-92

Item	1990	1991	1992
Dollars per bred cow			
Gross value of production:			
Steer calves	50.92	51.60	47.76
Heifer calves	40.94	41.61	38.71
Yearling steers	151.00	150.96	146.86
Yearling heifers	69.72	69.75	67.98
Other cattle	131.00	127.33	122.60
Total, gross value of production	443.58	441.25	423.91
Cash expenses:			
Feeder cattle	12.26	12.07	11.10
Feed--			
Grain	5.07	5.47	5.34
Protein supplements	18.92	18.79	19.77
By-products	3.38	3.26	3.57
Harvested forages	89.63	83.26	89.39
Pasture	108.32	97.21	106.72
Total feed costs	225.32	207.99	224.79
Other--			
Veterinary and medicine	11.80	10.72	13.18
Livestock hauling	3.47	4.52	4.47
Marketing	5.57	5.48	2.96
Custom feed mixing	0.35	0.35	0.19
Fuel, lube, electricity	15.90	16.88	15.43
Machinery and building repairs	18.96	19.83	20.28
Hired labor	36.26	37.35	39.29
Other variable cash expenses	3.76	3.85	3.96
Total, variable cash expenses	333.65	319.04	335.65
General farm overhead	39.01	31.45	31.80
Taxes and insurance	17.61	15.49	15.72
Interest	62.08	51.76	45.17
Total, fixed cash expenses	118.70	98.70	92.69
Total, cash expenses	452.35	417.74	428.34
Gross value of production less cash expenses	-8.77	23.51	-4.43

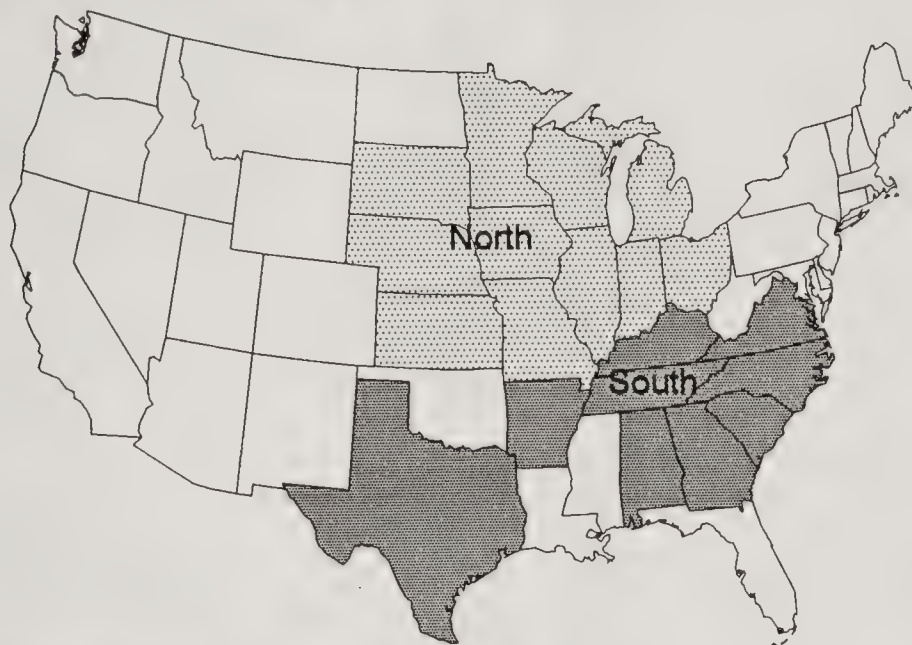
Table 55B--Cow-calf production economic costs and returns, West, 1990-92

Item	1990	1991	1992
Dollars per bred cow			
Gross value of production:			
Steer calves	50.92	51.60	47.76
Heifer calves	40.94	41.61	38.71
Yearling steers	151.00	150.96	146.86
Yearling heifers	69.72	69.75	67.98
Other cattle	131.00	127.33	122.60
Total, gross value of production	443.58	441.25	423.91
Economic (full ownership) costs:			
Variable cash expenses	333.65	319.04	335.65
General farm overhead	39.01	31.45	31.80
Taxes and insurance	17.61	15.49	15.72
Capital replacement	82.73	82.65	82.38
Operating capital	18.69	13.02	8.99
Other nonland capital	30.81	32.60	34.36
Land	0.02	0.02	0.02
Unpaid labor	74.08	76.63	80.29
Total, economic costs	596.60	570.90	589.21
Residual returns to management and risk	-153.02	-129.65	-165.30

Note: 1990 to 1992 estimates were based on a revised methodology and are not directly comparable with results for previous years.

Figure 28

Hog Production Regions



Producers in the States shaded were surveyed about production practices and costs of production.

Figure 29
Hog production economic costs per cwt gain, 1992

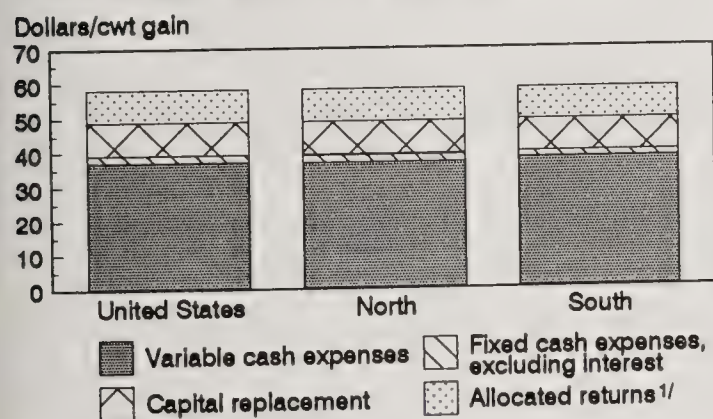


Figure 30
Farrow-to-finish production economic costs per cwt gain, 1992

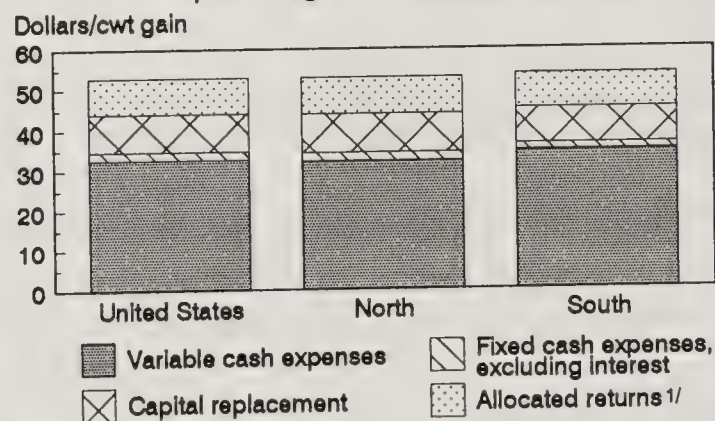


Figure 31
Farrow-to-feeder pig production economic costs per cwt gain, 1992

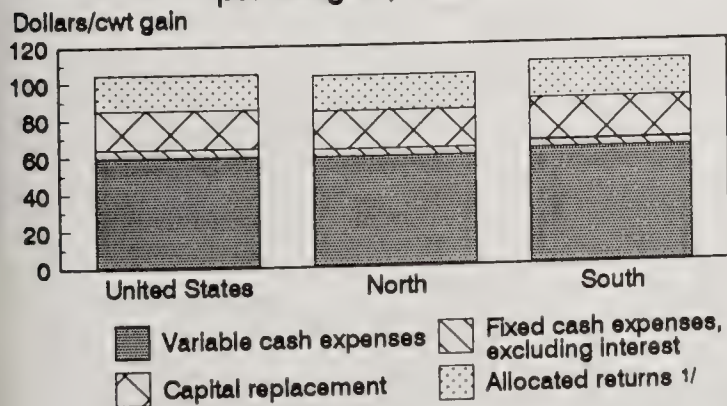
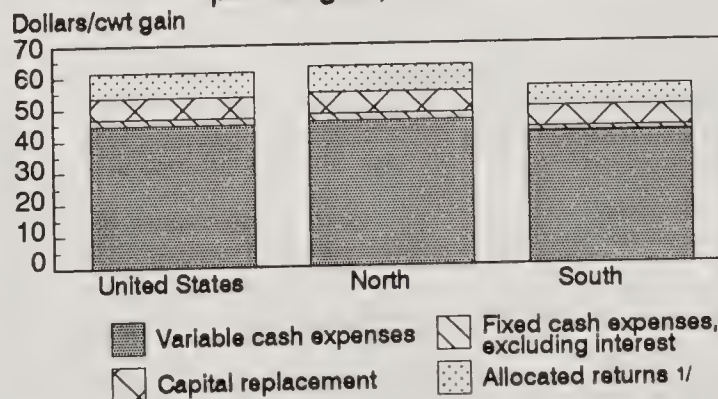


Figure 32
Feeder pig-to-finish production economic costs per cwt gain, 1992



^{1/} Income foregone by allocating resources owned by the operation (operating and other nonland capital, land, and unpaid labor) to hog production rather than some other income-producing use.

Table 56A--U.S. hog production cash costs and returns,
1992

Item	1992
	Dollars per cwt gain 1/
Gross value of production:	
Market hogs	38.44
Feeder pigs	4.43
Cull stock	2.39
Breeding stock	2.17
Inventory change	-0.03
Other income 2/	0.00
Total, gross value of production	47.40
Cash expenses:	
Feed--	
Grain	11.17
Protein sources	8.87
Complete mixes	5.34
Other feed items 3/	0.59
Total feed costs	25.97
Other--	
Feeder pigs	3.24
Veterinary and medicine	1.28
Bedding and litter	0.08
Marketing	0.52
Custom services and supplies	0.43
Fuel, lube, and electricity	1.65
Repairs	1.22
Hired labor	2.62
Total, variable cash expenses	37.01
General farm overhead	1.43
Taxes and insurance	0.83
Interest	2.58
Total, fixed cash expenses	4.84
Total, cash expenses	41.85
Gross value of production less cash expenses	5.55

Table 56B--U.S. hog production economic costs and returns,
1992

Item	1992
	Dollar per cwt gain 1/
Gross value of production:	
Market hogs	38.44
Feeder pigs	4.43
Cull stock	2.39
Breeding stock	2.17
Inventory change	-0.03
Other income 2/	0.00
Total, gross value of production	47.40
Economic (full ownership) costs:	
Variable cash expenses	37.01
General farm overhead	1.43
Taxes and insurance	0.83
Capital replacement	9.69
Operating capital	0.66
Other nonland capital	3.38
Land	0.24
Unpaid labor	5.06
Total, economic (full-ownership) costs	58.30
Residual returns to management and risk	-10.90

1/ Cwt gain = (cwt sold - cwt purchased) + cwt inventory change. 2/ Receipts from manure sales. 3/ Milk replacer, milk, milk by-products, antibiotics, other medicated additives.

Table 57A--Hog production cash costs and returns, North,
1992

Item	1992
	Dollars per cwt gain 1/
Gross value of production:	
Market hogs	38.31
Feeder pigs	4.43
Cull stock	2.39
Breeding stock	2.27
Inventory change	0.06
Other income 2/	0.00
Total, gross value of production	47.46
Cash expenses:	
Feed--	
Grain	11.32
Protein sources	9.25
Complete mixes	4.57
Other feed items 3/	0.67
Total feed costs	25.81
Other--	
Feeder pigs	3.11
Veterinary and medicine	1.38
Bedding and litter	0.09
Marketing	0.48
Custom services and supplies	0.41
Fuel, lube, and electricity	1.64
Repairs	1.23
Hired labor	2.66
Total, variable cash expenses	36.81
General farm overhead	1.51
Taxes and insurance	0.85
Interest	2.74
Total, fixed cash expenses	5.10
Total, cash expenses	41.91
Gross value of production less cash expenses	5.55

Table 57B--Hog production economic costs and returns,
North, 1992

Item	1992
	Dollar per cwt gain 1/
Gross value of production:	
Market hogs	38.31
Feeder pigs	4.43
Cull stock	2.39
Breeding stock	2.27
Inventory change	0.06
Other income 2/	0.00
Total, gross value of production	47.46
Economic (full ownership) costs:	
Variable cash expenses	36.81
General farm overhead	1.51
Taxes and insurance	0.85
Capital replacement	9.75
Operating capital	0.66
Other nonland capital	3.34
Land	0.26
Unpaid labor	5.15
Total, economic (full-ownership) costs	58.33
Residual returns to management and risk	-10.87

1/ Cwt gain = (cwt sold - cwt purchased) + cwt inventory change. 2/ Receipts from manure sales. 3/ Milk replacer, milk, milk by-products, antibiotics, and other medicated additives.

Table 58A--Hog production cash costs and returns,
South, 1992

Item	1992
	Dollars per cwt gain 1/
Gross value of production:	
Market hogs	39.04
Feeder pigs	4.45
Cull stock	2.39
Breeding stock	1.66
Inventory change	-0.49
Other income 2/	0.00
Total, gross value of production	47.05
Cash expenses:	
Feed--	
Grain	10.41
Protein sources	6.98
Complete mixes	9.21
Other feed items 3/	0.23
Total feed costs	26.83
Other--	
Feeder pigs	3.86
Veterinary and medicine	0.78
Bedding and litter	0.02
Marketing	0.72
Custom services and supplies	0.51
Fuel, lube, and electricity	1.73
Repairs	1.14
Hired labor	2.42
Total, variable cash expenses	38.01
General farm overhead	1.03
Taxes and insurance	0.75
Interest	1.77
Total, fixed cash expenses	3.55
Total, cash expenses	41.56
Gross value of production less cash expenses	5.49

Table 58B--Hog production economic costs and returns,
South, 1992

Item	1992
	Dollar per cwt gain 1/
Gross value of production:	
Market hogs	39.04
Feeder pigs	4.45
Cull stock	2.39
Breeding stock	1.66
Inventory change	-0.49
Other income 2/	0.00
Total, gross value of production	47.05
Economic (full ownership) costs:	
Variable cash expenses	38.01
General farm overhead	1.03
Taxes and insurance	0.75
Capital replacement	9.40
Operating capital	0.68
Other nonland capital	3.56
Land	0.16
Unpaid labor	4.57
Total, economic (full-ownership) costs	58.16
Residual returns to management and risk	-11.11

1/ Cwt gain = (cwt sold - cwt purchased) + cwt inventory change.
2/ Receipts from manure sales.
3/ Milk replacer, milk, milk by-products, antibiotics, and other medicated additives.

Table 59A--U.S. Farrow-to-finish production cash costs and returns, 1992

Item	1992
Dollars per cwt gain 1/	
Gross value of production:	
Market hogs	39.75
Feeder pigs	0.39
Cull stock	2.27
Breeding stock	0.19
Inventory change	-0.15
Other income 2/	0.00
Total, gross value of production	42.45
Cash expenses:	
Feed--	
Grain	11.51
Protein sources	9.57
Complete mixes	3.90
Other feed items 3/	0.55
Total feed costs	25.53
Other--	
Feeder pigs	0.14
Veterinary and medicine	1.12
Bedding and litter	0.06
Marketing	0.43
Custom services and supplies	0.37
Fuel, lube, and electricity	1.56
Repairs	1.19
Hired labor	2.36
Total, variable cash expenses	32.76
General farm overhead	1.27
Taxes and insurance	0.76
Interest	2.31
Total, fixed cash expenses	4.34
Total, cash expenses	37.10
Gross value of production less cash expenses	5.35

Table 59B--U.S. Farrow-to-finish production economic costs and returns, 1992

Item	1992
Dollar per cwt gain 2/	
Gross value of production:	
Market hogs	39.75
Feeder pigs	0.39
Cull stock	2.27
Breeding stock	0.19
Inventory change	-0.15
Other income 2/	0.00
Total, gross value of production	42.45
Economic (full ownership) costs:	
Variable cash expenses	32.76
General farm overhead	1.27
Taxes and insurance	0.76
Capital replacement	9.39
Operating capital	0.58
Other nonland capital	3.30
Land	0.24
Unpaid labor	4.82
Total, economic (full-ownership) costs	53.12
Residual returns to management and risk	-10.67

1/ Cwt gain = (cwt sold - cwt purchased) + cwt inventory change. 2/ Receipts from manure sales. 3/ Milk replacer, milk, milk by-products, antibiotics, and other medicated additives.

Table 60A--Farrow-to-finish production cash costs and returns, North, 1992

Item	1992
	Dollars per cwt gain 1/
Gross value of production:	
Market hogs	39.70
Feeder pigs	0.38
Cull stock	2.40
Breeding stock	0.17
Inventory change	0.07
Other income 2/	0.00
Total, gross value of production	42.72
Cash expenses:	
Feed--	
Grain	11.37
Protein sources	9.72
Complete mixes	3.45
Other feed items 3/	0.60
Total feed costs	25.14
Other--	
Feeder pigs	0.16
Veterinary and medicine	1.17
Bedding and litter	0.06
Marketing	0.41
Custom services and supplies	0.36
Fuel, lube, and electricity	1.52
Repairs	1.20
Hired labor	2.34
Total, variable cash expenses	32.36
General farm overhead	1.32
Taxes and insurance	0.77
Interest	2.46
Total, fixed cash expenses	4.55
Total, cash expenses	36.91
Gross value of production less cash expenses	5.81

Table 60B--Farrow-to-finish production economic costs and returns, North, 1992

Item	1992
	Dollar per cwt gain 1/
Gross value of production:	
Market hogs	39.70
Feeder pigs	0.38
Cull stock	2.40
Breeding stock	0.17
Inventory change	0.07
Other income 2/	0.00
Total, gross value of production	42.72
Economic (full ownership) costs:	
Variable cash expenses	32.36
General farm overhead	1.32
Taxes and insurance	0.77
Capital replacement	9.50
Operating capital	0.58
Other nonland capital	3.30
Land	0.26
Unpaid labor	4.88
Total, economic (full-ownership) costs	52.97
Residual returns to management and risk	-10.25

1/ Cwt gain = (cwt sold - cwt purchased) + cwt inventory change. 2/ Receipts from manure sales. 3/ Milk replacer, milk, milk by-products, antibiotics, and other medicated additives.

Table 61A--Farrow-to-finish production cash costs and returns, South, 1992

Item	1992
	Dollars per cwt gain 1/
Gross value of production:	
Market hogs	39.99
Feeder pigs	0.42
Cull stock	1.57
Breeding stock	0.27
Inventory change	-1.33
Other income 2/	0.01
Total, gross value of production	40.93
Cash expenses:	
Feed--	
Grain	12.24
Protein sources	8.82
Complete mixes	6.26
Other feed items 3/	0.30
Total feed costs	27.62
Other--	
Feeder pigs	0.06
Veterinary and medicine	0.83
Bedding and litter	0.02
Marketing	0.55
Custom services and supplies	0.43
Fuel, lube, and electricity	1.74
Repairs	1.11
Hired labor	2.47
Total, variable cash expenses	34.83
General farm overhead	0.98
Taxes and insurance	0.68
Interest	1.56
Total, fixed cash expenses	3.22
Total, cash expenses	38.05
Gross value of production less cash expenses	2.88

Table 61B--Farrow-to-finish production economic costs and returns, South, 1992

Item	1992
	Dollar per cwt gain 1/
Gross value of production:	
Market hogs	39.99
Feeder pigs	0.42
Cull stock	1.57
Breeding stock	0.27
Inventory change	-1.33
Other income 2/	0.01
Total, gross value of production	40.93
Economic (full ownership) costs:	
Variable cash expenses	34.83
General farm overhead	0.98
Taxes and insurance	0.68
Capital replacement	8.78
Operating capital	0.62
Other nonland capital	3.29
Land	0.16
Unpaid labor	4.49
Total, economic (full-ownership) costs	53.83
Residual returns to management and risk	-12.90

1/ Cwt gain = (cwt sold - cwt purchased) + cwt inventory change. 2/ Receipts from manure sales. 3/ Milk replacer, milk, milk by-products, antibiotics and other medicated additives.

Table 62A--U.S. Farrow-to-feeder pig production cash costs and returns, 1992

Item	1992
	Dollars per cwt gain 1/
Gross value of production:	
Market hogs	0.89
Feeder pigs	63.94
Cull stock	5.67
Breeding stock	0.11
Inventory change	2.43
Other income 2/	0.00
Total, gross value of production	73.04
Cash expenses:	
Feed--	
Grain	13.75
Protein sources	8.84
Complete mixes	14.00
Other feed items 3/	0.79
Total feed costs	37.38
Other--	
Feeder pigs	0.04
Veterinary and medicine	4.37
Bedding and litter	0.18
Marketing	2.44
Custom services and supplies	1.14
Fuel, lube, and electricity	4.90
Repairs	2.64
Hired labor	6.89
Total, variable cash expenses	59.98
General farm overhead	2.54
Taxes and insurance	1.68
Interest	4.77
Total, fixed cash expenses	8.99
Total, cash expenses	68.97
Gross value of production less cash expenses	4.07

Table 62B--U.S. Farrow-to-feeder pig production economic costs and returns, 1992

Item	1992
	Dollar per cwt gain 1/
Gross value of production:	
Market hogs	0.89
Feeder pigs	63.94
Cull stock	5.67
Breeding stock	0.11
Inventory change	2.43
Other income 2/	0.00
Total, gross value of production	73.04
Economic (full ownership) costs:	
Variable cash expenses	59.98
General farm overhead	2.54
Taxes and insurance	1.68
Capital replacement	21.22
Operating capital	1.07
Other nonland capital	6.87
Land	0.48
Unpaid labor	10.97
Total, economic (full-ownership) costs	104.81
Residual returns to management and risk	-31.77

1/ Cwt gain = (cwt sold - cwt purchased) + cwt inventory change. 2/ Receipts from manure sales. 3/ Milk replacer, milk, milk by-products, antibiotics, and other medicated additives.

Table 63A--Farrow-to-feeder pig production cash costs and returns, North, 1992

Item	1992
	Dollars per cwt gain 1/
Gross value of production:	
Market hogs	0.94
Feeder pigs	64.88
Cull stock	5.67
Breeding stock	0.12
Inventory change	-0.14
Other income 2/	0.00
Total, gross value of production	71.47
Cash expenses:	
Feed--	
Grain	15.56
Protein sources	9.82
Complete mixes	10.75
Other feed items 3/	0.94
Total feed costs	37.07
Other--	
Feeder pigs	0.05
Veterinary and medicine	4.99
Bedding and litter	0.22
Marketing	2.03
Custom services and supplies	0.91
Fuel, lube, and electricity	4.94
Repairs	2.79
Hired labor	6.35
Total, variable cash expenses	59.35
General farm overhead	2.59
Taxes and insurance	1.61
Interest	4.66
Total, fixed cash expenses	8.86
Total, cash expenses	68.21
Gross value of production less cash expenses	3.26

Table 63B--U.S. Farrow-to-feeder pig production economic costs and returns, 1992

Item	1992
	Dollar per cwt gain 1/
Gross value of production:	
Market hogs	0.94
Feeder pigs	64.88
Cull stock	5.67
Breeding stock	0.12
Inventory change	-0.14
Other income 2/	0.00
Total, gross value of production	71.47
Economic (full ownership) costs:	
Variable cash expenses	59.35
General farm overhead	2.59
Taxes and insurance	1.61
Capital replacement	20.78
Operating capital	1.06
Other nonland capital	6.68
Land	0.47
Unpaid labor	10.96
Total, economic (full-ownership) costs	103.50
Residual returns to management and risk	-32.03

1/ Cwt gain = (cwt sold - cwt purchased) + cwt inventory change. 2/ Receipts from manure sales. 3/ Milk replacer, milk, milk by-products, antibiotics, and other medicated additives.

Table 64A--Farrow-to-feeder pig production cash costs and returns, South, 1992

Item	1992
	Dollars per cwt gain 1/
Gross value of production:	
Market hogs	0.74
Feeder pigs	60.44
Cull stock	5.68
Breeding stock	0.09
Inventory change	12.04
Other income 2/	0.00
Total, gross value of production	78.99
Cash expenses:	
Feed--	
Grain	6.96
Protein sources	5.15
Complete mixes	26.15
Other feed items 3/	0.21
Total feed costs	38.47
Other--	
Feeder pigs	0.01
Veterinary and medicine	2.06
Bedding and litter	0.05
Marketing	3.97
Custom services and supplies	2.01
Fuel, lube, and electricity	4.75
Repairs	2.08
Hired labor	8.95
Total, variable cash expenses	62.35
General farm overhead	2.35
Taxes and insurance	1.92
Interest	5.16
Total, fixed cash expenses	9.43
Total, cash expenses	71.78
Gross value of production less cash expenses	7.21

Table 64B--Farrow-to-feeder pig production economic costs and returns, South, 1992

Item	1992
	Dollar per cwt gain 1/
Gross value of production:	
Market hogs	0.74
Feeder pigs	60.44
Cull stock	5.68
Breeding stock	0.09
Inventory change	12.04
Other income 2/	
Total, gross value of production	78.99
Economic (full ownership) costs:	
Variable cash expenses	62.35
General farm overhead	2.35
Taxes and insurance	1.92
Capital replacement	22.86
Operating capital	1.11
Other nonland capital	7.56
Land	0.54
Unpaid labor	11.01
Total, economic (full-ownership) costs	109.70
Residual returns to management and risk	-30.71

1/ Cwt gain = (cwt sold - cwt purchased) + cwt inventory change. 2/ Receipts from manure sales.

3/ Milk replacer, milk, milk by-products, antibiotics, and other medicated additives.

Table 65A--U.S. Feeder pig-to-finish production cash costs and returns, 1992

Item	1992
Dollars per cwt gain 1/	
Gross value of production:	
Market hogs	52.80
Feeder pigs	0.05
Cull stock	0.02
Breeding stock	0.01
Inventory change	0.10
Other income 2/	0.00
Total, gross value of production	52.98
Cash expenses:	
Feed--	
Grain	9.39
Protein sources	5.52
Complete mixes	7.20
Other feed items 3/	0.38
Total feed costs	22.49
Other--	
Feeder pigs	18.05
Veterinary and medicine	0.71
Bedding and litter	0.11
Marketing	0.39
Custom services and supplies	0.34
Fuel, lube, and electricity	0.82
Repairs	0.83
Hired labor	0.98
Total, variable cash expenses	44.72
General farm overhead	1.23
Taxes and insurance	0.80
Interest	2.81
Total, fixed cash expenses	4.84
Total, cash expenses	49.56
Gross value of production less cash expenses	3.42

Table 65B--U.S. Feeder pig-to-finish production economic costs and returns, 1992

Item	1992
Dollar per cwt gain 1/	
Gross value of production:	
Market hogs	52.80
Feeder pigs	0.05
Cull stock	0.02
Breeding stock	0.01
Inventory change	0.10
Other income 2/	0.00
Total, gross value of production	52.98
Economic (full ownership) costs:	
Variable cash expenses	44.72
General farm overhead	1.23
Taxes and insurance	0.80
Capital replacement	6.75
Operating capital	0.80
Other nonland capital	2.50
Land	0.11
Unpaid labor	4.54
Total, economic (full-ownership) costs	61.45
Residual returns to management and risk	-8.47

1/ Cwt gain = (cwt sold - cwt purchased) + cwt inventory change. 2/ Receipts from manure sales. 3/ Milk replacer, milk, milk by-products, antibiotics, and other medicated additives.

Table 66A--Feeder pig-to-finish production cash costs
and returns, North, 1992

Item	1992
	Dollars per cwt gain 1/
Gross value of production:	
Market hogs	53.16
Feeder pigs	0.05
Cull stock	0.01
Breeding stock	0.01
Inventory change	0.04
Other income 2/	0.00
Total, gross value of production	53.27
Cash expenses:	
Feed--	
Grain	10.43
Protein sources	6.23
Complete mixes	5.75
Other feed items 3/	0.46
Total feed costs	22.87
Other--	
Feeder pigs	18.33
Veterinary and medicine	0.83
Bedding and litter	0.14
Marketing	0.39
Custom services and supplies	0.32
Fuel, lube, and electricity	0.80
Repairs	0.88
Hired labor	1.11
Total, variable cash expenses	45.67
General farm overhead	1.34
Taxes and insurance	0.82
Interest	3.08
Total, fixed cash expenses	5.24
Total, cash expenses	50.91
Gross value of production less cash expenses	2.36

Table 66B--Feeder pig-to-finish production economic costs
and returns, North, 1992

Item	1992
	Dollar per cwt gain 1/
Gross value of production:	
Market hogs	53.16
Feeder pigs	0.05
Cull stock	0.01
Breeding stock	0.01
Inventory change	0.04
Other income 2/	0.00
Total, gross value of production	53.27
Economic (full ownership) costs:	
Variable cash expenses	45.67
General farm overhead	1.34
Taxes and insurance	0.82
Capital replacement	6.85
Operating capital	0.82
Other nonland capital	2.41
Land	0.13
Unpaid labor	4.96
Total, economic (full-ownership) costs	63.00
Residual returns to management and risk	-9.73

1/ Cwt gain = (cwt sold - cwt purchased) + cwt inventory
change. 2/ Receipts from manure sales. 3/ Milk
replacer, milk, milk by-products, antibiotics, and
other medicated additives.

Table 67A--Feeder pig-to-finish production cash costs and returns, South, 1992

Item	1992
Dollars per cwt gain 1/	
Gross value of production:	
Market hogs	51.55
Feeder pigs	0.05
Cull stock	0.04
Breeding stock	0.00
Inventory change	0.31
Other income 2/	0.00
Total, gross value of production	51.95
Cash expenses:	
Feed--	
Grain	5.76
Protein sources	3.04
Complete mixes	12.32
Other feed items 3/	0.08
Total feed costs	21.20
Other--	
Feeder pigs	17.07
Veterinary and medicine	0.31
Bedding and litter	0.01
Marketing	0.40
Custom services and supplies	0.42
Fuel, lube, and electricity	0.92
Repairs	0.64
Hired labor	0.55
Total, variable cash expenses	41.52
General farm overhead	0.86
Taxes and insurance	0.72
Interest	1.86
Total, fixed cash expenses	3.44
Total, cash expenses	44.96
Gross value of production less cash expenses	6.99

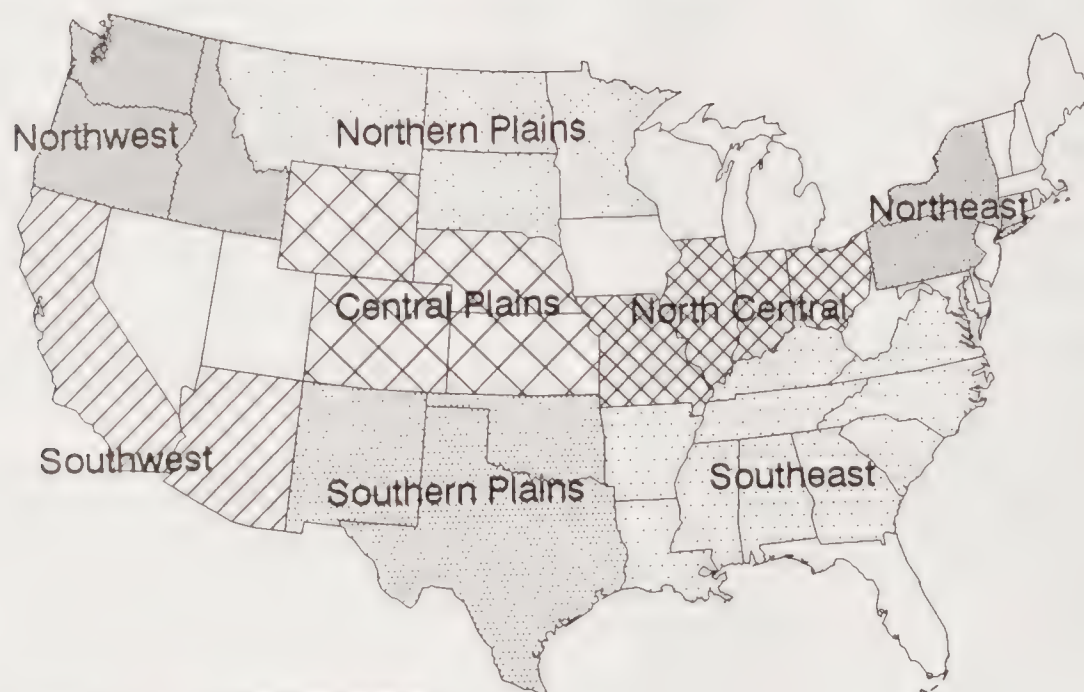
Table 67B--Feeder pig-to-finish production economic costs and returns, South, 1992

Item	1992
Dollar per cwt gain 1/	
Gross value of production:	
Market hogs	51.55
Feeder pigs	0.05
Cull stock	0.04
Breeding stock	0.00
Inventory change	0.31
Other income 2/	0.00
Total, gross value of production	51.95
Economic (full ownership) costs:	
Variable cash expenses	41.52
General farm overhead	0.86
Taxes and insurance	0.72
Capital replacement	6.38
Operating capital	0.74
Other nonland capital	2.83
Land	0.06
Unpaid labor	3.04
Total, economic (full-ownership) costs	56.15
Residual returns to management and risk	-4.20

1/ Cwt gain = (cwt sold - cwt purchased) + cwt inventory change. 2/ Receipts from manure sales. 3/ Milk replacer, milk, milk by-products, antibiot, and other medicated additives.

Figure 33

Wheat Production Regions, 1980-88



Producers in the States shaded were surveyed about production practices and costs of production. Production regions are defined for each crop based on common cultural practices.

Appendix table 1A--U.S. wheat production cash costs and returns, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments):									
Wheat	112.41	114.35	110.32	128.52	113.97	93.52	66.06	76.21	95.89
Wheat straw 1/	4.07	4.61	4.37	4.45	4.48	2.48	2.06	2.18	3.78
Total, gross value of production	116.48	118.96	114.69	132.97	118.45	96.00	68.12	78.39	99.67
Cash expenses:									
Seed	6.51	7.19	6.65	6.37	6.48	7.59	7.29	6.62	6.69
Fertilizer, lime, and gypsum	13.86	17.61	17.56	18.36	18.37	15.91	14.53	13.07	15.34
Chemicals	2.23	2.41	3.16	3.27	3.19	4.26	4.06	3.82	3.82
Custom operations 2/	2.94	4.54	5.86	6.02	6.04	4.17	4.12	4.12	3.89
Fuel, lube, and electricity	10.62	12.33	11.77	11.06	9.54	9.93	6.74	7.56	7.37
Repairs	7.23	7.80	7.18	7.77	7.49	6.56	6.17	6.32	6.41
Hired labor	2.88	3.00	3.02	3.21	3.15	2.43	2.54	2.53	2.59
Other variable cash expenses 3/	0.49	0.41	0.82	0.71	0.75	0.25	0.22	0.20	0.20
Total, variable cash expenses	46.76	55.29	56.03	56.77	55.01	51.10	45.67	45.67	44.24
General farm overhead	7.08	7.39	7.11	8.05	8.62	5.10	4.69	6.01	6.89
Taxes and insurance	7.33	7.39	6.90	7.69	7.86	7.44	7.92	8.11	8.19
Interest	14.58	19.81	18.45	21.86	22.98	12.69	9.08	10.09	9.57
Total, fixed cash expenses	28.99	34.59	32.46	37.60	39.46	25.23	21.69	24.21	24.65
Total, cash expenses	75.75	89.88	88.49	94.37	94.47	76.33	67.36	69.88	68.89
Gross value of production less cash expenses	40.73	29.08	26.20	38.60	23.98	19.67	0.76	8.51	30.78
Harvest-period price (dollars/bu.)	3.76	3.63	3.38	3.48	3.37	2.98	2.29	2.39	3.50
Yield (bu./planted acre)	29.87	31.47	32.64	36.89	33.79	31.41	28.79	31.87	27.42

Appendix table 1B--U.S. wheat production economic costs and returns, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments):									
Wheat	112.41	114.35	110.32	128.52	113.97	93.52	66.06	76.21	95.89
Wheat straw	4.07	4.61	4.37	4.45	4.48	2.48	2.06	2.18	3.78
Total, gross value of production	116.48	118.96	114.69	132.97	118.45	96.00	68.12	78.39	99.67
Economic (full ownership) costs:									
Variable cash expenses	46.76	55.29	56.03	56.77	55.01	51.10	45.67	45.67	44.24
General farm overhead	7.08	7.39	7.11	8.05	8.62	5.10	4.69	6.01	6.89
Taxes and insurance	7.33	7.39	6.90	7.69	7.86	7.44	7.92	8.11	8.19
Capital replacement	18.15	19.30	19.41	21.02	20.48	19.63	19.90	20.33	20.67
Operating capital	2.83	3.91	3.09	2.51	2.72	2.11	1.38	1.46	1.78
Other nonland capital	3.64	3.46	3.24	3.19	3.84	3.67	3.66	3.69	4.33
Land	30.06	29.44	29.75	34.41	29.78	30.81	23.30	24.87	31.38
Unpaid labor	6.40	6.67	6.72	7.14	7.01	5.40	5.66	5.63	5.77
Total, economic (full ownership) costs	122.25	132.85	132.25	140.78	135.31	125.26	112.18	115.77	123.25
Residual returns to management and risk	-5.77	-13.89	-17.56	-7.81	-16.86	-29.26	-44.06	-37.38	-23.58
Harvest-period price (dollars/bu.)	3.76	3.63	3.38	3.48	3.37	2.98	2.29	2.39	3.50
Yield (bu./planted acre)	29.87	31.47	32.64	36.89	33.79	31.41	28.79	31.87	27.42

1/ Includes value of wheat grazing in Southern Plains before 1985. 2/ Includes cost of technical services.

3/ Includes cost of purchased irrigation water.

Appendix table 2A--Wheat production cash costs and returns, Northeast, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments):									
Wheat	151.68	122.08	116.91	133.15	129.91	146.17	117.68	104.50	184.32
Wheat straw	42.51	66.56	61.26	59.31	72.14	83.88	82.74	95.48	101.13
Total, gross value of production	194.19	188.64	178.17	192.46	202.05	230.05	200.42	199.98	285.45
Cash expenses:									
Seed	12.16	13.98	12.52	12.13	15.03	18.78	15.20	18.03	14.72
Fertilizer, lime, and gypsum	40.10	44.25	41.40	31.37	31.53	44.60	40.23	37.13	42.80
Chemicals	0.11	0.12	0.86	1.00	0.33	5.74	5.70	6.27	6.14
Custom operations 1/	5.28	5.62	5.44	5.57	5.74	4.38	4.38	4.57	5.19
Fuel, lube, and electricity	12.43	14.47	15.47	14.23	12.93	11.46	7.75	8.04	8.61
Repairs	7.81	8.67	9.63	10.21	9.94	7.75	7.38	7.38	8.03
Hired labor	4.92	5.31	6.19	5.95	7.08	3.71	4.03	3.93	4.66
Other variable cash expenses 2/	1.88	1.94	2.05	2.06	2.10	0.00	0.00	0.00	0.00
Total, variable cash expenses	84.69	94.36	93.56	82.52	84.68	96.42	84.67	85.35	90.15
General farm overhead	19.37	10.59	6.64	12.40	12.19	17.62	29.92	25.92	33.97
Taxes and insurance	13.87	15.31	18.37	19.17	21.05	20.81	22.07	22.70	24.12
Interest	27.94	16.44	18.68	15.57	18.04	29.51	25.55	29.92	24.44
Total, fixed cash expenses	61.18	42.34	43.69	47.14	51.28	67.94	77.54	55.84	58.41
Total, cash expenses	145.87	136.70	137.25	129.66	135.96	164.36	162.21	141.19	148.56
Gross value of production less cash expenses	48.32	51.94	40.92	62.80	66.09	65.69	38.21	58.79	136.89
Harvest-period price (dollars/bu.)	3.97	3.28	3.26	3.38	3.56	2.96	2.69	2.50	3.56
Yield (bu./planted acre)	38.18	37.24	35.91	39.37	36.46	49.31	43.74	41.84	51.71

Appendix table 2B--Wheat production economic costs and returns, Northeast, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments):									
Wheat	151.68	122.08	116.91	133.15	129.91	146.17	117.68	104.50	184.32
Wheat straw	42.51	66.56	61.26	59.31	72.14	83.88	82.74	95.48	101.13
Total, gross value of production	194.19	188.64	178.17	192.46	202.05	230.05	200.42	199.98	285.45
Economic (full ownership) costs:									
Variable cash expenses	84.69	94.36	93.56	82.52	84.68	96.42	84.67	85.35	90.15
General farm overhead	19.37	10.59	6.64	12.40	12.19	17.62	29.92	25.92	33.97
Taxes and insurance	13.87	15.31	18.37	19.17	21.05	20.81	22.07	22.70	24.12
Capital replacement	19.16	20.71	29.90	32.00	34.02	30.48	30.77	30.56	32.84
Operating capital	6.02	8.12	6.42	4.50	5.07	5.43	3.40	3.80	4.59
Other nonland capital	4.04	3.98	5.86	5.63	7.55	5.73	5.77	5.65	7.10
Land	17.08	17.25	19.82	20.70	22.88	33.57	26.94	30.53	36.69
Unpaid labor	10.94	11.79	13.75	13.21	15.73	8.26	8.86	8.76	10.36
Total, economic costs	175.17	182.11	194.33	190.13	203.17	218.32	212.40	213.27	239.82
Residual returns to management and risk	19.02	6.53	-16.16	2.33	-1.12	11.73	-11.98	-13.29	45.63
Harvest-period price (dollars/bu.)	3.97	3.28	3.26	3.38	3.56	2.96	2.69	2.50	3.56
Yield (bu./planted acre)	38.18	37.24	35.91	39.37	36.46	49.31	43.74	41.84	51.71

1/ Includes cost of technical services. 2/ Includes cost of purchased irrigation water.

Appendix table 3A--Wheat production cash costs and returns, Southeast, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments):									
Wheat	124.90	135.87	105.33	105.57	117.61	79.45	67.63	79.56	143.09
Wheat straw	18.36	3.18	1.52	1.60	1.48	1.83	1.37	1.48	1.54
Total, gross value of production	143.26	139.05	106.85	107.17	119.09	81.28	69.00	81.04	144.63
Cash expenses:									
Seed	11.18	11.78	10.16	9.68	11.20	11.75	10.61	10.00	10.97
Fertilizer, lime, and gypsum	33.48	39.23	35.7	34.65	36.24	33.62	29.78	27.77	33.66
Chemicals	0.94	2.57	2.75	2.87	2.96	1.95	1.83	1.70	1.75
Custom operations 1/	3.54	7.34	7.34	7.35	7.38	4.24	3.33	3.11	4.29
Fuel, lube, and electricity	11.00	11.04	10.14	8.99	7.43	7.70	4.55	5.83	5.83
Repairs	6.42	6.02	6.02	6.27	6.45	6.30	5.69	5.96	6.65
Hired labor	3.62	3.12	2.97	3.04	3.04	2.60	2.59	2.71	2.89
Other variable cash expenses 2/	0.79	0.21	0.86	0.86	0.87	0.00	0.00	0.00	0.00
Total, variable cash expenses	70.97	81.31	75.94	73.71	75.57	68.16	58.38	57.08	66.04
General farm overhead	7.42	6.66	4.89	4.98	5.10	3.39	4.01	4.63	8.08
Taxes and insurance	4.09	3.71	3.82	4.09	4.38	7.32	7.30	7.56	7.97
Interest	17.33	19.46	17.24	13.74	14.5	8.83	7.55	7.33	9.94
Total, fixed cash expenses	28.84	29.83	25.95	22.81	23.98	19.54	18.86	19.52	25.99
Total, cash expenses	99.81	111.14	101.89	96.52	99.55	87.69	77.24	76.60	92.03
Gross value of production less cash expenses	43.45	27.91	4.96	10.65	19.54	-6.41	-8.24	4.44	52.60
Harvest-period price (dollars/bu.)	3.75	3.45	3.09	3.26	3.23	2.97	2.47	2.47	3.36
Yield (bu./planted acre)	33.33	39.40	34.09	32.38	36.46	26.79	27.33	32.19	42.61

Appendix table 3B--Wheat production economic costs and returns, Southeast, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments):									
Wheat	124.90	135.87	105.33	105.57	117.61	79.45	67.63	79.56	143.09
Wheat straw	18.36	3.18	1.52	1.60	1.48	1.83	1.37	1.48	1.54
Total, gross value of production	143.26	139.05	106.85	107.17	119.09	81.28	69.00	81.04	144.63
Economic (full ownership) costs:									
Variable cash expenses	70.97	81.31	75.94	73.71	75.57	68.16	58.38	57.08	66.04
General farm overhead	7.42	6.66	4.89	4.98	5.10	3.39	4.01	4.63	8.08
Taxes and insurance	4.09	3.71	3.82	4.09	4.38	7.32	7.30	7.56	7.97
Capital replacement	17.11	16.81	17.53	18.47	18.39	17.60	18.24	18.97	20.76
Operating capital	4.08	5.93	4.42	3.38	3.94	3.04	1.90	2.05	2.65
Other nonland capital	3.37	2.75	2.67	2.53	3.19	3.10	3.07	3.16	4.08
Land	23.74	24.94	21.66	21.18	22.81	21.13	20.54	20.13	27.53
Unpaid labor	8.03	6.94	7.10	6.74	6.74	5.77	5.77	6.02	6.42
Total, economic costs	138.81	149.05	137.52	135.08	140.12	129.51	119.21	119.60	143.53
Residual returns to management and risk	4.45	-10.00	-30.67	-27.91	-21.03	-48.23	-50.21	-38.56	1.10
Harvest-period price (dollars/bu.)	3.75	3.45	3.09	3.26	3.23	2.97	2.47	2.47	3.36
Yield (bu./planted acre)	33.33	39.40	34.09	32.38	36.46	26.79	27.33	32.19	42.61

1/ Includes cost of technical services. 2/ Includes cost of purchased irrigation water.

Appendix table 4A--Wheat production cash costs and returns, North Central, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments):									
Wheat	169.84	145.71	112.96	142.00	131.91	127.95	69.28	113.55	160.21
Wheat straw	16.20	17.58	12.97	13.36	13.24	16.65	13.52	16.75	28.59
Total, gross value of production	186.04	163.29	125.93	155.36	145.15	144.60	82.80	130.30	188.80
Cash expenses:									
Seed	10.72	10.69	9.31	9.09	10.91	12.27	11.86	10.40	10.59
Fertilizer, lime, and gypsum	34.96	37.45	32.14	39.44	42.97	26.97	25.4	24.09	28.87
Chemicals	0.34	0.37	0.43	0.47	0.41	1.36	1.47	1.46	1.39
Custom operations 1/	4.35	3.82	6.3	6.47	6.55	1.79	1.79	1.85	1.95
Fuel, lube, and electricity	10.18	11.30	10.67	10.11	8.07	8.49	4.85	6.54	6.38
Repairs	6.38	6.86	5.64	6.35	5.88	5.63	4.57	5.41	5.93
Hired labor	3.62	3.98	3.60	3.64	3.53	3.13	2.97	3.39	3.61
Total, variable cash expenses	70.55	74.47	68.08	75.57	78.31	59.63	52.91	53.14	58.72
General farm overhead	8.71	7.58	5.56	7.57	7.48	5.36	3.96	7.78	11.33
Taxes and insurance	11.82	10.97	11.88	13.14	12.58	11.70	12.07	12.74	12.49
Interest	18.71	20.82	16.45	25.15	25.13	17.09	9.83	14.31	18.65
Total, fixed cash expenses	39.24	39.37	33.89	45.86	45.19	34.15	25.86	34.83	42.47
Total, cash expenses	109.79	113.84	101.97	121.43	123.50	93.78	78.77	87.97	101.19
Gross value of production less cash expenses	76.25	49.45	23.96	33.93	21.65	50.82	4.03	42.33	87.61
Harvest-period price (dollars/bu.)	3.80	3.42	3.14	3.28	3.26	2.89	2.29	2.37	3.42
Yield (bu./planted acre)	44.73	42.55	35.97	43.30	40.44	44.34	30.29	47.96	46.86

Appendix table 4B--Wheat production economic costs and returns, North Central, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments):									
Wheat	169.84	145.71	112.96	142.00	131.91	127.95	69.28	113.55	160.21
Wheat straw	16.20	17.58	12.97	13.36	13.24	16.65	13.52	16.75	28.59
Total, gross value of production	186.04	163.29	125.93	155.36	145.15	144.60	82.80	130.30	188.80
Economic (full ownership) costs:									
Variable cash expenses	70.55	74.47	68.08	75.57	78.31	59.63	52.91	53.14	58.72
General farm overhead	8.71	7.58	5.56	7.57	7.48	5.36	3.96	7.78	11.33
Taxes and insurance	11.82	10.97	11.88	13.14	12.58	11.70	12.07	12.74	12.49
Capital replacement	17.69	18.53	20.27	22.44	22.12	22.63	19.37	21.96	24.14
Operating capital	4.29	5.52	4.01	3.60	4.21	3.12	2.12	2.29	2.86
Other nonland capital	3.61	3.45	3.65	3.69	4.43	4.24	3.61	4.10	5.22
Land	47.53	37.58	29.84	35.91	32.21	50.43	29.26	44.23	63.65
Unpaid labor	8.05	8.85	7.99	8.09	7.83	6.95	6.62	7.53	8.03
Total, economic costs	172.25	166.95	151.28	170.01	169.18	164.07	129.92	153.77	186.44
Residual returns to management and risk	13.79	-3.66	-25.35	-14.65	-24.03	-19.47	-47.12	-23.47	2.36
Harvest-period price (dollars/bu.)	3.80	3.42	3.14	3.28	3.26	2.89	2.29	2.37	3.42
Yield (bu./planted acre)	44.73	42.55	35.97	43.30	40.44	44.34	30.29	47.96	46.86

1/ Includes cost of technical services.

Appendix table 5A--Wheat production cash costs and returns, Northern Plains, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments):									
Wheat	73.40	105.23	109.72	108.35	118.11	86.36	67.61	75.46	47.99
Wheat straw	0.00	0.00	0.89	0.91	0.90	1.95	1.41	1.55	2.77
Total, gross value of production	73.40	105.23	110.61	109.26	119.01	88.31	69.02	77.01	50.76
Cash expenses:									
Seed	6.70	7.86	7.33	7.10	7.50	6.86	6.62	5.82	6.19
Fertilizer, lime, and gypsum	8.84	9.70	10.55	12.38	11.15	11.97	10.30	9.58	10.87
Chemicals	3.36	3.65	5.39	5.81	5.61	4.40	4.39	4.29	4.35
Custom operations 1/	1.36	1.50	2.13	2.20	2.27	3.28	3.50	3.61	2.25
Fuel, lube, and electricity	8.82	10.76	9.26	8.86	7.55	6.63	5.13	5.10	4.57
Repairs	6.84	8.49	6.69	7.18	7.29	5.79	5.74	5.83	5.27
Hired labor	2.23	2.64	2.44	2.65	2.77	1.80	2.00	1.93	1.77
Other variable cash expenses 2/	0.01	0.01	0.44	0.44	0.44	0.00	0.00	0.00	0.00
Total, variable cash expenses	38.16	44.61	44.23	46.62	44.58	40.73	36.68	36.16	35.27
General farm overhead	4.64	7.39	6.99	7.36	11.53	4.27	4.22	6.24	3.83
Taxes and insurance	6.32	6.95	6.74	7.22	8.03	6.63	7.26	7.43	6.78
Interest	9.09	21.08	19.61	20.59	32.81	12.11	8.79	11.06	5.82
Total, fixed cash expenses	20.05	35.42	33.34	35.17	52.37	23.01	20.27	24.73	16.43
Total, cash expenses	58.21	80.03	77.57	81.79	96.95	63.74	56.95	60.89	51.70
Gross value of production less cash expenses	15.19	25.20	33.04	27.47	22.06	24.57	12.07	16.12	-0.94
Harvest-period price (dollars/bu.)	3.97	3.69	3.46	3.77	3.54	3.03	2.28	2.45	3.82
Yield (bu./planted acre)	18.51	28.51	31.68	28.76	33.36	28.49	29.69	30.81	12.56

Appendix table 5B--Wheat production economic costs and returns, Northern Plains, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments):									
Wheat	73.40	105.23	109.72	108.35	118.11	86.36	67.61	75.46	47.99
Wheat straw	0.00	0.00	0.89	0.91	0.90	1.95	1.41	1.55	2.77
Total, gross value of production	73.40	105.23	110.61	109.26	119.01	88.31	69.02	77.01	50.76
Economic (full ownership) costs:									
Variable cash expenses	38.16	44.61	44.23	46.62	44.58	40.73	36.68	36.16	35.27
General farm overhead	4.64	7.39	6.99	7.36	11.53	4.27	4.22	6.24	3.83
Taxes and insurance	6.32	6.95	6.74	7.22	8.03	6.63	7.26	7.43	6.78
Capital replacement	17.09	20.95	20.29	21.59	22.42	19.77	21.42	21.79	20.06
Operating capital	1.51	2.03	1.50	1.27	1.37	0.90	0.56	0.61	0.74
Other nonland capital	3.47	3.90	3.51	3.35	4.35	3.70	3.96	3.95	4.08
Land	26.89	34.61	34.88	34.07	35.59	30.96	28.61	27.81	24.60
Unpaid labor	4.95	5.87	5.43	5.90	6.14	4.02	4.44	4.29	3.95
Total, economic costs	103.03	126.31	123.56	127.38	134.02	110.98	107.15	108.28	99.31
Residual returns to management and risk	-29.63	-21.08	-12.95	-18.12	-15.01	-22.67	-38.13	-31.27	-48.55
Harvest-period price (dollars/bu.)	3.97	3.69	3.46	3.77	3.54	3.03	2.28	2.45	3.82
Yield (bu./planted acre)	18.51	28.51	31.68	28.76	33.36	28.49	29.69	30.81	12.56

1/ Includes cost of technical services. 2/ Includes cost of purchased irrigation water.

Appendix table 6A--Wheat production cash costs and returns, Central Plains, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments):									
Wheat	111.36	88.50	104.95	130.40	111.90	98.30	63.54	76.85	103.71
Wheat straw	1.10	1.24	2.12	2.11	2.19	0.58	0.55	0.59	0.52
Total, gross value of production	112.46	89.74	107.07	132.51	114.09	98.88	64.09	77.44	104.23
Cash expenses:									
Seed	4.11	4.28	4.54	4.30	4.30	6.67	6.55	5.71	5.59
Fertilizer, lime, and gypsum	8.29	9.38	10.79	10.77	10.50	11.11	13.29	11.43	12.27
Chemicals	0.87	0.96	1.09	1.15	1.15	0.97	1.07	1.07	1.06
Custom operations 1/	3.47	3.54	6.6	6.96	7.01	4.67	4.58	4.69	4.93
Fuel, lube, and electricity	9.97	11.38	10.72	9.99	8.45	7.51	6.10	5.98	5.87
Repairs	6.99	7.55	7.02	7.58	7.17	6.36	6.10	6.32	6.55
Hired labor	2.58	2.66	2.89	3.05	3.04	2.28	2.58	2.42	2.59
Other variable cash expenses 2/	0.01	0.00	0.25	0.25	0.25	0.00	0.00	0.00	0.00
Total, variable cash expenses	36.29	39.75	43.90	44.05	41.88	39.57	39.00	37.62	38.86
General farm overhead	7.18	5.84	6.19	8.79	9.04	5.31	3.69	6.10	7.52
Taxes and insurance	7.58	8.04	7.53	8.11	8.64	8.57	9.05	9.39	9.96
Interest	14.04	15.86	18.41	25.12	24.71	13.25	7.59	10.66	10.73
Total, fixed cash expenses	28.80	29.74	32.13	42.02	42.39	27.13	20.33	26.15	28.21
Total, cash expenses	65.09	69.49	76.03	86.07	84.27	66.70	59.33	63.77	67.07
Gross value of production less cash expenses	47.37	20.25	31.04	46.44	29.82	32.18	4.76	13.67	37.16
Harvest-period price (dollars/bu.)	3.50	3.67	3.37	3.37	3.29	2.81	2.15	2.26	3.31
Yield (bu./planted acre)	31.79	24.09	31.13	38.73	34.02	35.01	29.55	34.06	31.33

Appendix table 6B--Wheat production economic costs and returns, Central Plains, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments):									
Wheat	111.36	88.50	104.95	130.40	111.90	98.30	63.54	76.85	103.71
Wheat straw	1.10	1.24	2.12	2.11	2.19	0.58	0.55	0.59	0.52
Total, gross value of production	112.46	89.74	107.07	132.51	114.09	98.88	64.09	77.44	104.23
Economic (full ownership) costs:									
Variable cash expenses	36.29	39.75	43.90	44.05	41.88	39.57	39.00	37.62	38.86
General farm overhead	7.18	5.84	6.19	8.79	9.04	5.31	3.69	6.10	7.52
Taxes and insurance	7.58	8.04	7.53	8.11	8.64	8.57	9.05	9.39	9.96
Capital replacement	17.62	18.81	18.95	20.33	19.74	18.46	18.66	19.19	20.08
Operating capital	2.59	3.49	2.85	2.22	2.36	1.96	1.37	1.44	1.71
Other nonland capital	3.57	3.46	3.22	3.15	3.72	3.54	3.56	3.63	4.39
Land	29.31	20.87	28.98	36.52	30.13	24.10	15.51	18.70	25.60
Unpaid labor	5.74	5.90	6.41	6.79	6.76	5.09	5.74	5.39	5.77
Total, economic costs	109.88	106.16	118.03	129.96	122.26	106.60	96.58	101.46	113.89
Residual returns to management and risk	2.58	-16.42	-10.96	2.55	-8.17	-7.72	-32.49	-24.02	-9.66
Harvest-period price (dollars/bu.)	3.50	3.67	3.37	3.37	3.29	2.81	2.15	2.26	3.31
Yield (bu./planted acre)	31.79	24.09	31.13	38.73	34.02	35.01	29.55	34.06	31.33

1/ Includes cost of technical services. 2/ Includes cost of purchased irrigation water.

Appendix table 7A--Wheat production cash costs and returns, Southern Plains, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
	Dollars per planted acre								
Gross value of production (excluding direct Government payments):									
Wheat	87.23	86.35	83.93	102.60	80.04	65.97	39.45	38.17	65.37
Wheat straw 1/	5.42	9.62	9.51	9.51	9.35	0.10	0.09	0.12	0.11
Total, gross value of production	92.65	95.97	93.44	112.11	89.39	66.07	39.54	38.29	65.48
Cash expenses:									
Seed	5.39	5.54	5.30	5.02	4.08	5.40	5.73	5.61	4.66
Fertilizer, lime, and gypsum	12.45	15.58	15.00	12.20	15.52	13.44	11.87	10.25	11.95
Chemicals	1.75	1.74	1.86	1.94	1.98	5.77	5.88	5.43	5.44
Custom operations 2/	3.95	7.70	8.07	8.43	7.84	4.29	4.11	3.89	4.33
Fuel, lube, and electricity	12.88	14.60	14.75	14.30	12.62	14.53	10.71	10.99	11.26
Repairs	7.38	6.97	7.27	7.92	7.36	6.45	5.90	5.86	6.30
Hired labor	3.10	2.77	2.92	3.01	3.02	2.51	2.49	2.55	2.62
Other variable cash expenses 3/	0.07	0.01	0.01	0.02	0.01	0.47	0.48	0.45	0.44
Total, variable cash expenses	46.97	54.91	55.18	52.84	52.43	52.86	47.17	45.03	47.00
General farm overhead	5.95	5.63	4.91	4.80	5.00	3.38	3.58	2.55	4.12
Taxes and insurance	4.33	3.97	3.85	4.08	4.16	4.85	4.92	5.03	5.16
Interest	10.35	13.63	11.82	11.58	10.84	6.49	5.91	4.31	5.60
Total, fixed cash expenses	20.63	23.23	20.58	20.46	20.00	14.72	14.41	11.89	14.88
Total, cash expenses	67.60	78.14	75.76	73.30	72.43	67.57	61.58	56.92	61.88
Gross value of production less cash expenses	25.05	17.83	17.68	38.81	16.96	-1.50	-22.04	-18.63	3.60
Harvest-period price (dollars/bu.)	3.56	3.72	3.45	3.32	3.36	2.94	2.28	2.32	3.35
Yield (bu./planted acre)	24.51	23.18	24.36	30.92	23.80	22.41	17.30	16.46	19.49

Appendix table 7B--Wheat production economic costs and returns, Southern Plains, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
	Dollars per planted acre								
Gross value of production (excluding direct Government payments):									
Wheat	87.23	86.35	83.93	102.60	80.04	65.97	39.45	38.17	65.37
Wheat straw and grazing 1/	5.42	9.62	9.51	9.51	9.35	0.10	0.09	0.12	0.11
Total, gross value of production	92.65	95.97	93.44	112.11	89.39	66.07	39.54	38.29	65.48
Economic (full ownership) costs:									
Variable cash expenses	46.97	54.91	55.18	52.84	52.43	52.86	47.17	45.03	47.00
General farm overhead	5.95	5.63	4.91	4.80	5.00	3.38	3.58	2.55	4.12
Taxes and insurance	4.33	3.97	3.85	4.08	4.16	4.85	4.92	5.03	5.16
Capital replacement	16.44	15.61	16.33	17.87	16.14	17.58	17.30	17.03	18.14
Operating capital	3.28	3.92	3.14	2.34	2.61	2.50	1.63	1.75	2.05
Other nonland capital	3.18	2.48	2.49	2.49	2.88	3.27	3.05	2.95	3.72
Land	19.65	21.62	20.58	25.28	19.82	22.03	13.85	13.63	21.33
Unpaid labor	6.90	6.15	6.48	6.70	6.71	5.57	5.54	5.67	5.82
Total, economic costs	106.70	114.29	112.96	116.40	109.75	112.04	97.04	93.64	107.34
Residual returns to management and risk	-14.05	-18.32	-19.52	-4.29	-20.36	-45.97	-57.50	-55.35	-41.86
Harvest-period price (dollars/bu.)	3.56	3.72	3.45	3.32	3.36	2.94	2.28	2.32	3.35
Yield (bu./planted acre)	24.51	23.18	24.36	30.92	23.80	22.41	17.30	16.46	19.49

1/ Data on value of wheat grazing not available after 1985. 2/ Includes cost of technical services.

3/ Includes cost of purchased irrigation water.

Appendix table 8A--Wheat production cash costs and returns, Northwest, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments)									
Wheat	194.77	212.09	192.05	231.23	187.59	146.65	122.12	152.33	226.99
Wheat straw	0	0	2.43	2.32	1.97	0.94	0.89	0.82	1.08
Total, gross value of production	194.77	212.09	194.48	233.55	189.56	147.59	123.01	153.15	228.07
Cash expenses:									
Seed	7.37	6.72	6.58	6.61	7.08	9.36	8.83	8.29	8.35
Fertilizer, lime, and gypsum	18.72	23.24	25.81	27.4	25.39	22.61	20.15	19.2	19.66
Chemicals	6.48	7.20	10.13	10.54	11.46	10.38	10.41	10.18	10.29
Custom operations 1/	2.97	3.21	3.80	3.76	3.51	2.69	2.73	2.80	2.98
Fuel, lube, and electricity	12.24	13.53	14.26	13.91	12.16	14.43	11.94	13.10	13.01
Repairs	9.54	10.05	11.51	12.37	12.11	10.71	10.32	10.90	11.30
Hired labor	3.17	3.34	4.16	4.58	4.31	3.23	3.43	3.78	3.76
Other variable cash expenses 2/	1.95	1.82	2.07	2.08	2.12	1.91	1.85	1.90	1.91
Total, variable cash expenses	62.44	69.11	78.32	81.25	78.14	75.32	69.66	70.15	71.26
General farm overhead	12.74	14.59	19.44	14.80	14.67	11.02	10.77	13.31	17.38
Taxes and insurance	11.64	12.50	10.43	11.30	12.93	10.12	10.76	11.30	11.28
Interest	31.20	35.95	33.36	34.09	31.90	25.48	20.57	19.22	21.59
Total, fixed cash expenses	55.58	63.04	63.23	60.19	59.50	46.62	42.10	43.83	50.25
Total, cash expenses	118.02	132.15	141.55	141.44	137.64	121.94	111.76	113.98	121.51
Gross value of production less cash expenses	76.75	79.94	52.93	92.11	51.92	25.65	11.25	39.17	106.56
Harvest-period price (dollars/bu.)	3.68	3.84	3.75	3.75	3.40	3.14	2.41	2.50	3.74
Yield (bu./planted acre)	52.90	55.22	51.18	61.72	55.21	46.69	50.69	60.82	60.70

Appendix table 8B--Wheat production economic costs and returns, Northwest, 1980-88

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments)									
Wheat	194.77	212.09	192.05	231.23	187.59	146.65	122.12	152.33	226.99
Wheat straw	0	0	2.43	2.32	1.97	0.94	0.89	0.82	1.08
Total, gross value of production	194.77	212.09	194.48	233.55	189.56	147.59	123.01	153.15	228.07
Economic (full ownership) costs:									
Variable cash expenses	62.44	69.11	78.32	81.25	78.14	75.32	69.66	70.15	71.26
General farm overhead	12.74	14.59	19.44	14.80	14.67	11.02	10.77	13.31	17.38
Taxes and insurance	11.64	12.50	10.43	11.30	12.93	10.12	10.76	11.30	11.28
Capital replacement	26.46	25.73	25.10	26.65	27.57	26.10	26.39	27.87	28.37
Operating capital	3.93	5.38	4.67	3.79	3.97	3.86	2.56	2.83	3.29
Other nonland capital	5.20	4.68	4.21	4.05	5.10	4.76	4.86	5.08	6.06
Land	40.20	47.79	47.54	59.27	45.96	52.47	43.72	50.65	73.16
Unpaid labor	5.90	6.39	9.24	10.18	9.58	7.18	7.62	8.41	8.38
Total, economic costs	169.64	187.20	198.95	211.29	197.92	190.83	176.34	189.60	219.18
Residual returns to management and risk	25.13	24.89	-4.47	22.26	-8.36	-43.24	-53.33	-36.45	8.89
Harvest-period price (dollars/bu.)	3.68	3.84	3.75	3.75	3.40	3.14	2.41	2.50	3.74
Yield (bu./planted acre)	52.90	55.22	51.18	61.72	55.21	46.69	50.69	60.82	60.70

1/ Includes cost of technical services. 2/ Includes cost of purchased irrigation water.

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments):									
Wheat	266.81	287.45	249.42	253.36	240.90	266.55	207.00	201.79	323.64
Wheat straw	9.78	3.94	4.16	4.75	4.53	0.91	0.73	0.66	0.80
Total, gross value of production	276.59	291.39	253.58	258.11	245.43	267.46	207.73	202.45	324.44
Cash expenses:									
Seed	14.29	14.52	13.74	13.89	12.31	17.40	16.58	17.21	16.12
Fertilizer, lime, and gypsum	23.53	45.59	45.28	41.00	43.52	21.40	19.93	18.30	20.02
Chemicals	9.66	9.16	9.79	10.15	10.37	10.24	10.22	9.96	10.12
Custom operations 1/	9.28	35.75	32.44	32.39	32.96	22.8	22.65	22.86	24.99
Fuel, lube, and electricity	23.38	35.52	41.13	40.77	38.63	29.01	25.77	27.16	28.20
Repairs	11.11	13.05	12.66	13.50	14.56	9.66	9.33	9.53	10.04
Hired labor	9.29	7.22	7.47	7.45	7.82	8.11	8.40	8.70	8.98
Other variable cash expenses 2/	9.71	11.01	15.61	15.67	15.94	7.52	7.27	7.29	7.29
Total, variable cash expenses	108.25	171.82	178.12	174.82	176.11	126.14	120.15	121.01	125.76
General farm overhead	16.64	18.53	26.63	28.16	28.77	19.81	18.46	17.43	24.36
Taxes and insurance	19.00	16.71	14.00	15.01	15.46	17.22	17.49	17.74	17.88
Interest	40.74	43.47	42.27	62.27	58.08	46.26	35.63	22.06	28.52
Total, fixed cash expenses	76.38	78.71	82.90	105.44	102.31	83.29	71.58	57.23	70.76
Total, cash expenses	184.63	250.53	261.02	280.26	278.42	209.43	191.73	178.24	196.52
Gross value of production less cash expenses	91.96	40.86	-7.44	-22.15	-32.99	58.03	16.00	24.21	127.92
Harvest-period price (dollars/bu.)	3.86	3.97	3.67	3.87	3.47	3.38	2.85	2.76	4.06
Yield (bu./planted acre)	69.03	72.43	67.95	65.47	69.50	78.74	72.72	72.99	79.77

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Dollars per planted acre									
Gross value of production (excluding direct Government payments):									
Wheat	266.81	287.45	249.42	253.36	240.90	266.55	207.00	201.79	323.64
Wheat straw	9.78	3.94	4.16	4.75	4.53	0.91	0.73	0.66	0.80
Total, gross value of production	276.59	291.39	253.58	258.11	245.43	267.46	207.73	202.45	324.44
Economic (full ownership) costs:									
Variable cash expenses	108.25	171.82	178.12	174.82	176.11	126.14	120.15	121.01	125.76
General farm overhead	16.64	18.53	26.63	28.16	28.77	19.81	18.46	17.43	24.36
Taxes and insurance	19.00	16.71	14.00	15.01	15.46	17.22	17.49	17.74	17.88
Capital replacement	27.24	27.10	29.82	31.42	31.75	24.57	24.24	24.50	25.79
Operating capital	5.59	9.90	8.16	6.34	7.16	4.48	3.05	3.45	4.04
Other nonland capital	5.49	4.64	5.05	4.82	5.97	4.98	4.97	4.92	6.04
Land	60.86	60.19	67.16	67.46	67.12	108.97	90.03	92.49	107.82
Unpaid labor	20.69	16.05	16.60	16.55	17.38	18.05	18.70	19.38	19.98
Total, economic costs	263.71	324.94	345.54	344.58	349.72	324.22	297.09	300.92	331.67
Residual returns to management and risk	12.88	-33.55	-91.96	-86.47	-104.29	-56.76	-89.36	-98.47	-7.23
Harvest-period price (dollars/bu.)	3.86	3.97	3.67	3.87	3.47	3.38	2.85	2.76	4.06
Yield (bu./planted acre)	69.03	72.43	67.95	65.47	69.50	78.74	72.72	72.99	79.77

1/ Includes cost of technical services. 2/ Includes cost of purchased irrigation water.

Appendix table 10A--U.S. cow-calf production cash costs and returns, 1982-89

Item	1982	1983	1984	1985	1986	1987	1988	1989
Dollars per bred cow								
Gross value of production:								
Steer calves	74.22	74.62	76.37	77.71	78.17	94.86	106.29	109.95
Heifer calves	44.25	43.80	44.36	46.22	47.81	59.82	68.24	70.06
Yearling steers	64.73	61.23	65.89	61.52	66.69	79.68	88.81	93.41
Yearling heifers	42.19	38.89	41.47	40.30	43.97	54.42	60.44	62.68
Other cattle	30.10	28.64	30.69	28.64	28.83	34.61	35.91	36.05
Total, gross value of production	255.49	247.18	258.78	254.39	265.47	323.39	359.69	372.15
Cash expenses:								
Feed--								
Grain	8.31	10.70	11.20	9.39	7.62	6.54	9.49	9.85
Silage	4.66	6.20	5.83	6.04	5.55	5.07	7.00	4.66
Protein supplements	17.26	18.13	18.69	16.00	15.83	15.97	18.64	20.30
Salt and minerals	2.40	2.52	2.62	2.69	1.96	1.98	1.98	2.07
Hay	41.47	38.99	43.34	42.96	33.34	31.77	44.02	34.58
Pasture	39.02	36.45	39.30	36.44	34.47	31.78	34.89	39.62
Public grazing	0.75	0.65	0.71	0.66	0.69	0.71	0.75	0.88
Crop residue (purchased)	0.07	0.08	0.08	0.07	0.09	0.07	0.08	0.10
Total feed costs	113.94	113.72	121.77	114.25	99.55	93.91	116.85	112.06
Other--								
Veterinary and medicine	5.91	6.11	6.31	6.38	6.60	6.72	6.91	7.52
Livestock hauling	1.70	1.74	1.80	1.85	1.86	1.85	1.89	2.01
Marketing	3.90	4.00	4.10	4.21	4.16	4.24	4.54	4.98
Custom feed mixing	0.49	0.47	0.48	0.49	0.48	0.49	0.52	0.60
Fuel, lube, electricity	21.30	19.54	16.58	16.00	11.90	12.76	12.71	14.94
Machinery and building repairs	21.17	22.09	21.58	22.51	21.71	21.83	22.81	23.58
Hired labor	13.02	13.48	13.72	13.98	14.40	14.47	15.06	17.40
Total, variable cash expenses	181.43	181.15	186.34	179.67	160.66	156.27	181.29	183.09
General farm overhead	19.47	19.26	24.13	22.43	29.20	38.81	25.01	26.33
Taxes and insurance	20.87	23.43	19.54	19.04	24.06	29.04	30.05	30.08
Interest	45.43	44.96	46.52	44.30	39.82	42.04	49.88	47.98
Total, fixed cash expenses	85.77	87.65	90.19	85.77	93.08	109.89	104.94	104.39
Total, cash expenses	267.20	268.80	276.53	265.44	253.74	266.16	286.23	287.48
Gross value of production less cash expenses	-11.71	-21.62	-17.75	-11.05	11.73	57.23	73.46	84.67

Appendix table 10B--U.S. cow-calf production economic costs and returns, 1982-89

Item	1982	1983	1984	1985	1986	1987	1988	1989
Dollars per bred cow								
Gross value of production:								
Steer calves	74.22	74.62	76.37	77.71	78.17	94.86	106.29	109.95
Heifer calves	44.25	43.80	44.36	46.22	47.81	59.82	68.24	70.06
Yearling steers	64.73	61.23	65.89	61.52	66.69	79.68	88.81	93.41
Yearling heifers	42.19	38.89	41.47	40.30	43.97	54.42	60.44	62.68
Other cattle	30.10	28.64	30.69	28.64	28.83	34.61	35.91	36.05
Total, gross value of production	255.49	247.18	258.78	254.39	265.47	323.39	359.69	372.15
Economic (full ownership) costs:								
Variable cash expenses	181.43	181.15	186.34	179.67	160.66	156.27	181.29	183.09
General farm overhead	19.47	19.26	24.13	22.43	29.20	38.81	25.01	26.33
Taxes and insurance	20.87	23.43	19.54	19.04	24.06	29.04	30.05	30.08
Capital replacement	62.88	64.28	64.46	64.53	63.37	64.82	66.62	67.38
Operating capital	10.05	9.13	9.13	6.88	4.34	4.73	6.27	7.36
Other nonland capital	31.55	29.67	23.61	22.36	23.05	26.79	29.93	31.95
Land	92.86	83.72	66.15	54.86	56.21	65.50	74.35	82.19
Unpaid labor	71.71	74.68	76.73	78.27	82.56	82.30	87.05	89.39
Total, economic costs	490.82	484.12	470.09	448.04	443.45	468.26	500.57	517.77
Residual returns to management and risk	-235.33	-236.94	-211.31	-193.65	-177.98	-144.87	-140.88	-145.62

Appendix table 11A--Cow-calf production cash costs and returns, North Central, 1982-89

Item	1982	1983	1984	1985	1986	1987	1988	1989
Dollars per bred cow								
Gross value of production:								
Steer calves	79.81	81.05	82.15	79.25	84.03	101.84	114.24	116.73
Heifer calves	40.42	41.30	40.99	40.84	44.03	55.03	62.76	63.66
Yearling steers	58.19	62.55	62.75	65.88	59.93	71.98	79.93	86.48
Yearling heifers	43.41	46.66	47.05	49.34	45.03	56.01	62.01	64.43
Other cattle	35.14	35.64	39.77	34.46	36.70	44.23	45.96	47.76
Total, gross value of production	256.97	267.20	272.71	269.77	269.72	329.09	364.90	379.06
Cash expenses:								
Feed--								
Grain	9.50	12.23	12.36	10.42	8.12	6.47	9.41	10.09
Silage	8.05	10.54	8.95	9.00	7.80	7.26	14.13	10.34
Protein supplements	12.18	13.11	12.79	11.40	12.45	12.48	14.53	16.63
Salt and minerals	3.81	3.89	3.99	4.08	1.99	2.01	2.02	2.10
Hay	47.38	45.21	56.48	46.07	40.33	41.26	67.66	53.27
Pasture	16.59	16.14	17.34	14.36	14.11	12.61	14.79	17.24
Total feed costs	97.51	101.12	111.91	95.33	84.80	82.09	122.54	109.67
Other--								
Veterinary and medicine	5.76	5.96	6.08	6.14	6.30	6.43	6.62	7.44
Livestock hauling	1.88	1.95	2.02	2.09	2.03	2.02	2.07	2.11
Marketing	2.57	2.67	2.75	2.72	2.71	2.77	2.96	3.21
Custom feed mixing	0.11	0.12	0.13	0.13	0.13	0.13	0.14	0.17
Fuel, lube, electricity	20.66	19.24	16.04	15.37	12.02	12.29	11.86	13.85
Machinery and building repairs	23.37	24.25	23.60	24.12	23.12	23.28	24.09	24.58
Hired labor	3.26	3.56	3.70	3.82	3.69	3.86	4.01	5.76
Total, variable cash expenses	155.12	158.87	166.23	149.72	134.80	132.87	174.29	166.79
General farm overhead	19.58	20.82	25.43	23.79	29.67	39.49	26.88	28.29
Taxes and insurance	38.75	50.24	44.47	41.08	46.00	50.72	47.53	54.78
Interest	45.69	48.60	49.02	46.98	40.46	42.78	53.59	51.55
Total, fixed cash expenses	104.03	119.66	118.92	111.84	116.13	132.99	128.00	134.62
Total, cash expenses	259.15	278.53	285.15	261.56	250.93	265.86	302.29	301.41
Gross value of production less cash expenses	-2.18	-11.33	-12.44	8.21	18.79	63.23	62.61	77.65

Appendix table 11B--Cow-calf production economic costs and returns, North Central, 1982-89

Item	1982	1983	1984	1985	1986	1987	1988	1989
Dollars per bred cow								
Gross value of production:								
Steer calves	79.81	81.05	82.15	79.25	84.03	101.84	114.24	116.73
Heifer calves	40.42	41.30	40.99	40.84	44.03	55.03	62.76	63.66
Yearling steers	58.19	62.55	62.75	65.88	59.93	71.98	79.93	86.48
Yearling heifers	43.41	46.66	47.05	49.34	45.03	56.01	62.01	64.43
Other cattle	35.14	35.64	39.77	34.46	36.70	44.23	45.96	47.76
Total, gross value of production	256.97	267.20	272.71	269.77	269.72	329.09	364.90	379.06
Economic (full ownership) costs:								
Variable cash expenses	155.12	158.87	166.23	149.72	134.80	132.87	174.29	166.79
General farm overhead	19.58	20.82	25.43	23.79	29.67	39.49	26.88	28.29
Taxes and insurance	38.75	50.24	44.47	41.08	46.00	50.72	47.53	54.78
Capital replacement	70.00	72.88	71.75	73.57	72.48	73.10	74.72	74.88
Operating capital	8.60	6.95	8.15	5.73	3.64	4.02	6.03	6.70
Other nonland capital	36.21	34.05	27.10	25.66	26.46	30.70	34.34	36.68
Land	97.16	82.66	63.00	45.05	63.23	60.92	73.30	90.92
Unpaid labor	92.62	99.09	98.73	102.51	100.30	104.13	110.62	112.46
Total, economic costs	518.04	525.56	504.86	467.11	476.58	495.95	547.71	571.50
Residual returns to management and risk	-261.07	-258.36	-232.15	-197.34	-206.86	-166.86	-182.81	-192.44

Appendix table 12A--Cow-calf production cash costs and returns, South, 1982-89

Item	1982	1983	1984	1985	1986	1987	1988	1989
Dollars per bred cow								
Gross value of production:								
Steer calves	82.30	82.89	85.79	88.49	93.80	113.58	127.55	133.17
Heifer calves	45.27	45.29	46.13	48.76	51.62	64.43	73.59	74.94
Yearling steers	30.99	32.39	31.20	32.11	31.10	37.33	41.52	42.73
Yearling heifers	19.31	21.17	19.40	20.81	20.70	25.67	28.53	29.50
Other cattle	34.65	33.52	35.01	32.81	32.14	38.73	40.21	41.35
Total, gross value of production	212.52	215.26	217.53	222.98	229.36	279.74	311.40	321.69
Cash expenses:								
Feed--								
Grain	9.72	11.96	12.63	10.82	9.85	7.80	11.42	12.25
Silage	2.91	4.20	3.43	3.40	4.07	3.77	4.50	3.34
Protein supplements	13.90	14.21	14.74	13.05	8.86	8.96	10.31	10.85
Salt and minerals	3.36	3.45	3.54	3.62	1.91	1.93	1.94	2.02
Hay	52.47	49.71	55.64	46.83	41.16	39.00	47.90	39.05
Pasture	57.62	54.10	56.32	49.81	49.73	47.44	53.97	56.23
Total feed costs	139.98	137.63	146.30	127.53	115.58	108.90	130.04	123.74
Other--								
Veterinary and medicine	5.65	5.83	5.88	5.97	6.17	6.31	6.48	6.96
Livestock hauling	0.91	0.95	0.98	1.01	1.00	1.00	1.02	1.09
Marketing	4.16	4.19	4.23	4.29	3.79	3.87	4.14	4.37
Custom feed mixing	0.98	1.04	1.07	1.07	1.24	1.26	1.32	1.42
Fuel, lube, electricity	23.94	20.73	17.72	16.83	12.39	13.60	13.69	15.95
Machinery and building repairs	25.64	26.58	25.96	26.79	25.88	25.98	27.03	28.01
Hired labor	14.52	14.92	14.91	15.31	15.62	16.41	17.46	18.14
Total, variable cash expenses	215.78	211.87	217.05	198.80	181.67	177.33	201.18	199.68
General farm overhead	16.20	16.77	20.28	19.66	25.23	33.57	21.32	22.44
Taxes and insurance	18.57	20.14	18.73	19.45	21.76	26.43	27.90	29.75
Interest	37.79	39.15	39.10	38.83	34.40	36.37	42.51	40.89
Total, fixed cash expenses	72.55	76.07	78.12	77.94	81.39	96.37	91.73	93.08
Total, cash expenses	288.33	287.94	295.17	276.74	263.06	273.70	292.91	292.76
Gross value of production less cash expenses	-75.81	-72.68	-77.64	-53.76	-33.70	6.04	18.49	28.93

Appendix table 12B--Cow-calf production cash costs and returns, South, 1982-89

Item	1982	1983	1984	1985	1986	1987	1988	1989
Dollars per bred cow								
Gross value of production:								
Steer calves	82.30	82.89	85.79	88.49	93.80	113.58	127.55	133.17
Heifer calves	45.27	45.29	46.13	48.76	51.62	64.43	73.59	74.94
Yearling steers	30.99	32.39	31.20	32.11	31.10	37.33	41.52	42.73
Yearling heifers	19.31	21.17	19.40	20.81	20.70	25.67	28.53	29.50
Other cattle	34.65	33.52	35.01	32.81	32.14	38.73	40.21	41.35
Total, gross value of production	212.52	215.26	217.53	222.98	229.36	279.74	311.40	321.69
Economic (full ownership) costs:								
Variable cash expenses	215.78	211.87	217.05	198.80	181.67	177.33	201.18	199.68
General farm overhead	16.20	16.77	20.28	19.66	25.23	33.57	21.32	22.44
Taxes and insurance	18.57	20.14	18.73	19.45	21.76	26.43	27.90	29.75
Capital replacement	74.74	77.38	77.71	79.46	80.48	80.81	83.03	85.36
Operating capital	11.96	9.27	10.64	7.61	4.91	5.36	6.96	8.03
Other nonland capital	36.56	34.39	27.36	25.91	27.11	31.28	35.06	38.03
Land	109.16	103.66	81.29	72.51	72.81	92.47	105.43	118.32
Unpaid labor	66.35	69.64	72.13	73.43	84.30	86.48	95.46	100.04
Total, economic costs	549.31	543.12	525.19	496.83	498.27	533.73	576.34	601.65
Residual returns to management and risk	-336.79	-327.86	-307.66	-273.85	-268.91	-253.99	-264.94	-279.96

Appendix table 13A--Cow-calf production cash costs and returns, Great Plains, 1982-89

Item	1982	1983	1984	1985	1986	1987	1988	1989
Dollars per bred cow								
Gross value of production:								
Steer calves	69.90	71.51	72.30	75.73	72.70	88.13	98.68	103.30
Heifer calves	47.30	46.87	47.39	50.24	50.86	63.52	72.38	73.87
Yearling steers	78.29	70.70	79.17	71.04	78.88	94.39	105.03	109.49
Yearling heifers	50.44	42.90	47.97	45.35	50.70	62.95	69.71	72.81
Other cattle	22.50	20.58	22.32	21.39	21.53	25.77	26.81	27.89
Total, gross value of production	268.43	252.56	269.15	263.75	274.67	334.76	372.61	387.36
Cash expenses:								
Feed--								
Grain	6.95	9.27	9.93	8.20	6.56	6.18	9.07	8.77
Silage	5.97	8.05	8.37	8.92	7.66	6.89	8.15	6.25
Protein supplements	24.83	27.10	27.79	23.21	23.78	23.98	27.89	29.79
Salt and minerals	1.44	1.68	1.90	1.93	1.94	1.96	1.96	2.07
Hay	33.29	32.34	33.73	42.63	26.06	24.09	33.27	27.34
Pasture	33.90	29.43	35.13	33.23	33.52	30.29	32.81	35.76
Public grazing	0.89	0.74	0.90	0.85	0.86	0.91	0.94	0.98
Crop residue	0.19	0.21	0.22	0.20	0.22	0.18	0.21	0.22
Total feed costs	107.46	108.82	117.97	119.17	100.60	94.48	114.30	111.18
Other--								
Veterinary and medicine	5.85	6.04	6.30	6.38	6.57	6.68	6.88	7.45
Livestock hauling	1.55	1.57	1.63	1.69	1.65	1.64	1.67	1.81
Marketing	4.54	4.68	4.75	4.91	5.03	5.12	5.48	5.80
Custom feed mixing	0.64	0.53	0.53	0.54	0.56	0.57	0.60	0.64
Fuel, lube, electricity	22.21	20.67	17.69	17.08	11.97	13.31	13.08	15.46
Machinery and building repairs	18.67	19.54	19.23	20.38	19.72	19.78	20.86	21.86
Hired labor	11.52	11.85	11.93	11.43	12.61	12.82	13.08	14.17
Total, variable cash expenses	172.44	173.70	180.03	181.58	158.71	154.40	175.95	178.37
General farm overhead	20.46	19.68	25.10	23.26	30.21	40.17	25.74	27.10
Taxes and insurance	17.35	18.28	12.98	12.80	19.33	23.45	25.52	26.87
Interest	47.73	45.94	48.38	45.93	41.20	43.52	51.33	49.38
Total, fixed cash expenses	85.54	83.90	86.46	81.99	90.74	107.14	102.59	103.35
Total cash expenses	257.98	257.60	266.49	263.57	249.45	261.54	278.54	281.72
Gross value of production less cash expenses	10.45	-5.04	2.66	0.18	25.22	73.22	94.07	105.64

Appendix table 13B--Cow-calf production economic costs and returns, Great Plains, 1982-89

Item	1982	1983	1984	1985	1986	1987	1988	1989
Dollars per bred cow								
Gross value of production:								
Steer calves	69.90	71.51	72.30	75.73	72.70	88.13	98.68	103.30
Heifer calves	47.30	46.87	47.39	50.24	50.86	63.52	72.38	73.87
Yearling steers	78.29	70.70	79.17	71.04	78.88	94.39	105.03	109.49
Yearling heifers	50.44	42.90	47.97	45.35	50.70	62.95	69.71	72.81
Other cattle	22.50	20.58	22.32	21.39	21.53	25.77	26.81	27.89
Total, gross value of production	268.43	252.56	269.15	263.75	274.67	334.76	372.61	387.36
Economic (full ownership) costs:								
Variable cash expenses	172.44	173.70	180.03	181.58	158.71	154.40	175.95	178.37
General farm overhead	20.46	19.68	25.10	23.26	30.21	40.17	25.74	27.10
Taxes and insurance	17.35	18.28	12.98	12.80	19.33	23.45	25.52	26.87
Capital replacement	56.90	58.25	58.11	56.88	56.12	58.02	59.55	61.57
Operating capital	9.56	7.60	8.82	6.95	4.28	4.67	6.09	7.17
Other nonland capital	28.58	26.87	21.39	20.25	21.05	24.51	27.31	29.86
Land	97.02	89.56	71.94	60.00	54.68	63.74	71.11	75.92
Unpaid labor	65.08	67.11	68.41	69.53	72.75	72.51	74.75	79.92
Total, economic costs	467.38	461.05	446.78	431.25	417.13	441.47	466.02	486.78
Residual returns to management and risk	-198.95	-208.49	-177.63	-167.50	-142.46	-106.71	-93.41	-99.42

Appendix table 14A--Cow-calf production cash costs and returns, West, 1982-89

Item	1982	1983	1984	1985	1986	1987	1988	1989
Dollars per bred cow								
Gross value of production:								
Steer calves	68.11	65.95	68.88	67.93	69.96	84.84	95.24	99.49
Heifer calves	41.03	38.96	39.88	40.66	42.53	53.20	60.73	61.80
Yearling steers	84.41	75.71	83.44	75.36	81.12	97.34	108.06	111.32
Yearling heifers	52.61	45.54	50.46	47.18	51.49	63.90	70.71	73.15
Other cattle	33.85	31.51	33.41	31.74	32.17	38.77	40.26	41.38
Total, gross value of production	280.01	257.67	276.07	262.87	277.27	338.05	375.00	387.14
Cash expenses:								
Feed--								
Grain	8.08	10.57	10.92	9.03	7.16	6.13	8.62	9.53
Silage	1.70	1.97	2.01	2.14	1.79	1.67	1.97	1.46
Protein supplements	12.26	11.18	12.12	10.74	11.22	11.25	13.11	13.85
Salt and minerals	1.85	1.89	1.86	1.94	2.00	2.02	2.02	2.11
Hay	38.39	33.74	36.68	37.03	33.61	31.39	41.55	37.00
Pasture	44.89	44.40	43.42	42.60	38.07	34.67	36.91	38.89
Public grazing	1.91	1.68	1.63	1.57	1.47	1.52	1.60	1.71
Total feed costs	109.08	105.43	108.64	105.05	95.32	88.65	105.78	104.55
Other--								
Veterinary and medicine	6.44	6.64	6.95	7.01	7.20	7.34	7.55	8.13
Livestock hauling	2.68	2.72	2.78	2.88	2.80	2.81	2.87	3.06
Marketing	3.59	3.70	3.86	4.01	4.09	4.18	4.45	4.69
Fuel, lube, electricity	17.34	16.53	13.90	13.69	11.29	11.46	11.89	13.59
Machinery and building repairs	18.72	19.82	19.31	20.14	20.49	20.61	21.60	22.40
Hired labor	21.63	22.17	22.45	22.86	23.93	23.23	24.45	25.51
Total, variable cash expenses	179.48	177.01	177.89	175.64	165.12	158.28	178.59	181.93
General farm overhead	21.34	20.08	25.74	23.18	30.50	40.57	26.49	27.88
Taxes and insurance	15.24	15.40	13.74	13.31	17.84	24.84	26.71	28.14
Interest	49.79	46.87	49.63	45.78	41.59	43.95	52.81	50.80
Total, fixed cash expenses	86.37	82.35	89.11	82.26	89.93	109.36	106.01	106.82
Total, cash expenses	265.85	259.36	267.00	257.90	255.05	267.64	284.60	288.75
Gross value of production less cash expenses	14.16	-1.69	9.07	4.97	22.22	70.41	90.40	98.39

Appendix table 14B--Cow-calf production economic costs and returns, West, 1982-89

Item	1982	1983	1984	1985	1986	1987	1988	1989
Dollars per bred cow								
Gross value of production:								
Steer calves	68.11	65.95	68.88	67.93	69.96	84.84	95.24	99.49
Heifer calves	41.03	38.96	39.88	40.66	42.53	53.20	60.73	61.80
Yearling steers	84.41	75.71	83.44	75.36	81.12	97.34	108.06	111.32
Yearling heifers	52.61	45.54	50.46	47.18	51.49	63.90	70.71	73.15
Other cattle	33.85	31.51	33.41	31.74	32.17	38.77	40.26	41.38
Total, gross value of production	280.01	257.67	276.07	262.87	277.27	338.05	375.00	387.14
Economic (full ownership) costs:								
Variable cash expenses	179.48	177.01	177.89	175.64	165.12	158.28	178.59	181.93
General farm overhead	21.34	20.08	25.74	23.18	30.50	40.57	26.49	27.88
Taxes and insurance	15.24	15.40	13.74	13.31	17.84	24.84	26.71	28.14
Capital replacement	53.84	53.36	55.36	53.86	54.48	56.31	58.69	59.67
Operating capital	9.95	7.74	8.72	6.73	4.46	4.79	6.18	7.31
Other nonland capital	27.80	26.14	20.80	19.70	20.51	23.88	26.75	28.89
Land	56.19	51.12	41.32	35.47	40.06	48.50	54.21	59.88
Unpaid labor	72.19	74.32	79.78	80.75	84.16	79.11	83.41	88.99
Total, economic costs	436.03	425.17	423.35	408.64	417.13	436.28	461.03	482.69
Residual returns to management and risk	-156.02	-167.50	-147.28	-145.77	-139.86	-98.23	-86.03	-95.55

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